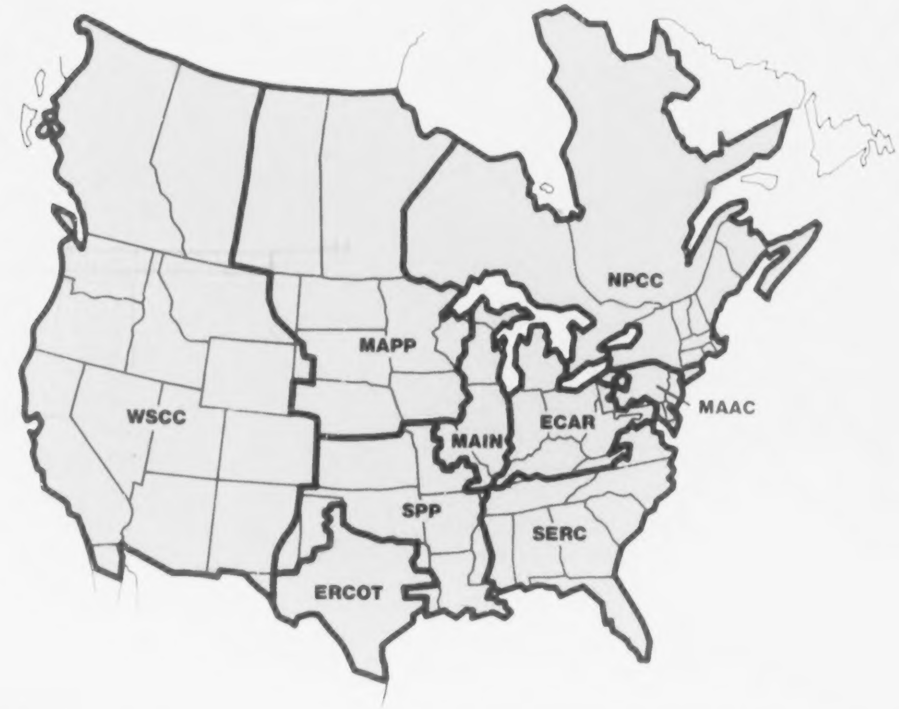
1986
ELECTRICITY SUPPLY & DEMAND

FOR 1986-1995

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL

OCTOBER 1986

North American Electric Reliability Council



ECAR	East Central Area Reliability Coordination Agreement
ERCOT	Electric Reliability Council of Texas
MAAC	Mid-Atlantic Area Council
MAIN	Mid-America Interpool Network
MAPP	Mid-continent Area Power Pool
NPCC	Northeast Power Coordinating Council
SERC	Southeastern Electric Reliability Council
SPP	Southwest Power Pool
WSCC	Western Systems Coordinating Council

AFFILIATE

ASCC	Alaska Systems Coordinating Council

The North American Electric Reliability Council (NERC) was formed by the electric utility industry in 1968 to promote the RELIABILITY of bulk power supply in the electric utility systems of North America. NERC consists of nine Regional Reliability Councils and one affiliate encompassing virtually all of the power systems in the United States and Canada.

RELIABILITY, in a bulk power electric system, is the degree to which the performance of the elements of that system results in power being delivered to consumers within accepted standards and in the amount desired. The degree of reliability may be measured by the frequency, duration, and magnitude of adverse effects on consumer service.

Bulk power electric system reliability can be addressed by considering two basic and functional aspects of the bulk power system—adequacy and security.

ADEQUACY is the ability of the bulk power electric system to supply the aggregate electrical power and energy requirements of the consumers at all times, taking into account scheduled and unscheduled outages of system components.

SECURITY is the ability of the bulk power electric system to withstand sudden disturbances such as electric short circuits or unanticipated loss of system components.

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ANNUAL DATA SUMMARY

1986 ELECTRICITY SUPPLY & DEMAND

FOR 1986-1995

FOR THE REGIONAL RELIABILITY COUNCILS
OF THE
NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL

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INTRODUCTION

One of the major activities of the North American Electric Reliability Council (NERC) is the annual collection and publication of electric utility ten-year projections of electricity supply and demand by regions. This **Electricity Supply & Demand** report provides such data for the 1986-1995 forecast period in a concise and useful format to satisfy the needs of a wide variety of users both within and outside of the electric utility industry.

The data summarized in this report are aggregations of the projections developed by the nine Regional Reliability Councils and reflect conditions as of January 1, 1986. Data on peak demand, net energy for load, capacity resources, capacity margins, and planned additions and retirements of generating units have been extracted from the April 1, 1986 Coordinated Bulk Power Supply Program (IE-411) reports submitted to the United States Department of Energy (DOE) by each Regional Reliability Council. Data on generating capacity, electric energy production, fossil fuel requirements, planned conversions of units from oil to c[illegible]d existing and planned additions of transmission lines were reported by the [illegible]al Reliability Councils directly to NERC.

The areas served by the nine Regional Reliability Councils are shown on the inside front cover of this report. Five of the regions — MAIN, NPCC, SERC, SPP, and WSCC — are further broken down into subregions. The regional and subregional abbreviations used throughout this report are defined in the listing on the inside back cover.

For the first time, the North American Electric Reliability Council's electricity supply and demand projections include data for Nova Scotia Power Corporation in both NPCC (Canada) and NERC-CANADA. In addition, data is included for that part of the Comision Federal de Electricidad system, in the northern portion of Baja California, which is interconnected with the U.S. electric utility systems under the new category, WSCC (Mexico) or NERC-MEXICO.

NERC is also publishing for the first time high and low values of a forecast bandwidth around the most probable aggregations of peak demand and annual net energy for load projections for NERC-U.S. and NERC-CANADA. This bandwidth may provide a better understanding of NERC's aggregated projections as well as illustrate the uncertainty inherent in the forecasting process.

Where seasons are designated, SUMMER is defined as that period of the year between June 1 and September 30 and WINTER as that period between December 1 and March 31 of the following year.

This report provides projections, not predictions, as of January 1, 1986. Future uncertainties, many beyond individual electric utility control, could invalidate the many underlying assumptions of these projections and modify the general trends indicated.

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OVERVIEW
1986-1995 PROJECTIONS

DEMAND

PEAK DEMANDS (Thousands of MW)	**SUMMER**	**1986**	**1995**	Annual Growth Rate (%)
	NERC-U.S.	475	577	2.2
	NERC-CANADA	47	61	3.0
	NERC-MEXICO	0.6	1.2	7.1
	NERC-TOTAL	**523**	**639**	**2.3**
	WINTER	**1986/87**	**1995/96**	
	NERC-U.S.	435	533	2.3
	NERC-CANADA	65	83	2.8
	NERC-MEXICO	0.4	0.8	7.1
	NERC-TOTAL	**500**	**618**	**2.4**
PEAK DEMAND FORECAST UNCERTAINTY (Thousands of MW)	**SUMMER**	**1986**	**1995**	Annual Growth Rate (%)
	HIGH	483	704	4.3
	NERC-U.S.	**475**	**577**	**2.2**
	LOW	457	450	-0.2
	WINTER	**1986/87**	**1995/96**	
	HIGH	69	101	4.4
	NERC-CANADA	**65**	**83**	**2.8**
	LOW	61	67	1.0
PEAK DEMAND RATIOS (%)	**SUMMER/WINTER**	**1986**	**1995**	Peak Season
	NERC-U.S.	109	108	Summer
	NERC-CANADA	72	73	Winter
	NERC-MEXICO	155	155	Summer
	NERC-TOTAL	**105**	**103**	**Summer**
NET ENERGY FOR LOAD (NEL) (Millions of MWh)	**ANNUAL**	**1986**	**1995**	Annual Growth Rate (%)
	NERC-U.S.	2,525	3,103	2.3
	NERC-CANADA	350	462	3.1
	NERC-MEXICO	3.0	5.6	7.3
	NERC-TOTAL	**2,878**	**3,571**	**2.4**
NEL FORECAST UNCERTAINTY (Millions of MWh)	**ANNUAL**	**1986**	**1995**	Annual Growth Rate (%)
	HIGH	2,621	3,822	4.3
	NERC-U.S.	**2,525**	**3,103**	**2.3**
	LOW	2,484	2,444	-0.2
	HIGH	372	562	4.7
	NERC-CANADA	**350**	**462**	**3.1**
	LOW	332	374	1.3
SYSTEM LOAD FACTORS (%)	**ANNUAL**	**1986**	**1995**	**TREND**
	NERC-U.S.	60.7	61.4	Increasing
	NERC-CANADA	61.6	63.3	Increasing
	NERC-MEXICO	52.6	53.7	Increasing
	NERC-TOTAL	**62.8**	**63.8**	**Increasing**

OVERVIEW
1986-1995 PROJECTIONS

SUPPLY

	SUMMER	1986	1995	Annual Growth Rate (%)
PLANNED CAPACITY RESOURCES (Thousands of MW)	NERC-U.S.	636	715	1.3
	NERC-CANADA	85	96	1.4
	NERC-MEXICO	0.8	1.2	5.1
	NERC-TOTAL	**721**	**812**	**1.3**
	WINTER	**1986/87**	**1995/96**	
	NERC-U.S.	655	727	1.2
	NERC-CANADA	87	100	1.6
	NERC-MEXICO	0.9	1.2	4.3
	NERC-TOTAL	**743**	**828**	**1.2**

	SUMMER	1986	1995
ESTIMATED CAPACITY MARGINS (%)	NERC-U.S.	26	20
	NERC-MEXICO	19	4
	NERC-TOTAL	**28**	**23**
	WINTER	**1986/87**	**1995/96**
	NERC-CANADA	27	19

		1986-1995					
		UTILITY				NON-	
	SUMMER	NUCLEAR	COAL	HYDRO	OTHER	UTILITY	TOTAL
PLANNED GENERATING UNIT ADDITIONS (Thousands of MW)	**NERC-U.S.**	**29.8**	**30.7**	**2.4**	**14.2**	**9.6**	**86.7**
	NERC-CANADA	5.2	3.0	4.9	0.5	0.2	13.8
	NERC-MEXICO	0.0	0.0	0.0	0.5	0.0	0.5
	NERC-TOTAL	**35.0**	**33.7**	**7.3**	**15.2**	**9.8**	**101.0**

TRANSMISSION

		1986-1995			
	VOLTAGE LEVEL	NERC U.S.	NERC CANADA	NERC MEXICO	NERC TOTAL
PLANNED TRANSMISSION ADDITIONS (Circuit Miles in Thousands)	230 kV (AC)	6.0	3.4	0.03	**9.4**
	345 kV (AC)	6.2	0.7	0.0	**6.9**
	500 kV (AC)	3.7	1.8	0.0	**5.5**
	765 kV (AC)	<0.2	<0.1	0.0	**0.2**
	± 250 kV (DC) and above	0.8	0.7	0.0	**1.5**
	TOTAL	**16.8**	**6.7**	**0.03**	**23.5**

PEAK DEMANDS

The demand data represents 1985 actual and 1986-1995 projected electric peak demands for the nine Regional Reliability Councils and their subregions. All peak demands are 60-minute integrated demands.

Within a region, the peak demands of individual electric utilities may occur in different months within a given season. Therefore, the peak demands for the NERC regions as well as for NERC-U.S., NERC-CANADA and NERC-TOTAL represent aggregations of non-coincident utility peak demands. Demands which are interruptible by contract are included in these aggregations.

In this report, the summer period includes June through September, while the winter period begins in December and runs through March of the following year.

1984 and 1985 Peak Demands

Table 1 compares 1984 and 1985 electric peak demands in the United States and Canada. The summer peak demand for the United States in 1985 was 2.1% greater than that in 1984 but was about 1% less than last year's forecast for 1985. In Canada, the winter peak demand was 5.5% above the 1984 peak and 3.2% greater than forecast.

1986-1995 Projections

Details of the 1986-1995 peak demand projections for the nine Regional Reliability Councils and their subregions are shown in Tables 2 (summer) and 3 (winter). These tables also include last year's actual peak demands and average annual peak demand growth rates. The average annual growth rates are calculated over the nine-year period from the first (1986) to the tenth (1995) year of the projections.

For the first time, NERC's electricity supply and demand projections include data for Nova Scotia Power Corporation in both NPCC (Canada) and NERC-CANADA. In addition, data is included for that part of the Comision Federal de Electricidad system, in the northern portion of Baja California, which is interconnected with the U.S. systems under the new category WSCC (Mexico) or NERC-MEXICO.

The NERC aggregated summer peak demands in Table 2 show an increase of 116,000 MW over the 1986-1995 period — corresponding to a NERC-TOTAL average annual growth rate of 2.3%. The higher summer annual growth rates for NERC-CANADA and NERC-MEXICO are offset by the NERC-U.S. annual growth rate of 2.2%.

Table 3 shows that the NERC aggregated winter peak demands are projected to increase by 117,000 MW over the forecast period — corresponding to a NERC-TOTAL average annual growth rate of 2.4%. NERC-CANADA, a winter peaking area, has a summer peak demand growth rate higher than its winter peak growth rate. In contrast, NERC-U.S., a summer peaking area, has a winter peak demand growth rate higher than its summer peak growth rate. However, over the next 10 years, NERC-U.S. and NERC-TOTAL are projected to remain summer peaking areas and NERC-CANADA winter peaking. NERC-MEXICO will remain summer peaking throughout the forecast period.

Summer/Winter Peak Demand Ratios

Figure 1 illustrates the summer-to-winter peak demand ratios for the NERC regions as well as for NERC-U.S., NERC-CANADA, NERC-MEXICO and NERC-TOTAL. The ratio, in percent, is calculated by dividing the summer peak demand for a given year (i.e., 1987) by the following winter (i.e., 1987/88) peak demand and multiplying the resulting ratio by 100. The seasonal peak demand ratios range from the highly winter peaking NPCC (Canada) and MAPP (Canada) areas to the highly summer peaking NERC-MEXICO and SPP areas.

Figure 1 also shows that four of the nine NERC regions in the United States -- MAAC, ERCOT, MAIN and SPP — have faster growing winter peak demands than summer peak demands, although all four regions remain summer peaking throughout the 1986-1995 forecast period. ECAR and MAPP (U.S.) project essentially no change in their summer-to-winter peak demand ratios and are projected to remain summer peaking regions. In contrast, SERC, WSCC (U.S.) and NPCC (U.S.) are tending toward increased summer peaking regions.

In Canada, all three NERC regions are projecting faster growing summer peak demands than winter peak demands but all will remain winter peaking regions over the next 10 years. The WSCC (Mexico) area, or NERC-MEXICO, is a strongly summer peaking area with its summer peak about one and one-half times its winter peak.

Forecast Uncertainty

NERC's peak demand projections in Tables 2 and 3 are aggregates of the most probable forecasts of the reporting utilities. These regional projections represent the midpoints of probabilistic distributions of forecast values. That is, the likelihood of the projections in Tables 2 and 3 being exceeded is equal to the likelihood of these projections not being reached.

In order to provide a better understanding of NERC's aggregated forecasts of peak demand and to illustrate the uncertainty inherent in the forecasting process, high and low forecast bounds around the NERC-U.S. and NERC-CANADA projections have been defined as shown in Figures 2 and 3, respectively. These bounds, or sensitivity bandwidths, are defined such that there is about a 10% chance that demand will exceed the upper bound and about a 10% chance that demand will be lower than the lower bound. That is, there is approximately an 80% chance that future peak demands for the U.S. and Canada will fall within their respective bounds.

In defining the U.S. bandwidth, regression analysis was used to establish a relationship between peak demand and key energy-related indicators. The established relationships between the indicators and peak demand were used with high and low estimates of the indicators to develop corresponding high and low bounds for the peak demand projections as shown in Figure 2. The bandwidth for Canada's peak demand projections in Figure 3 was derived by adding the respective high and low forecast scenarios as provided by each Canadian utility.

The NERC-U.S. demand bandwidth growth rates range from -0.2% to 4.3% per year over the forecast period. The comparable winter peak demand bandwidth growth rates for NERC-CANADA range from 1% to 4.4% per year.

It would be incorrect to apply the ranges of the projections shown in Figures 2 and 3 to the projections of any NERC region or subregion, or to any individual utility. The high and low bounds apply only to the NERC-U.S. and NERC-CANADA aggregated projections for peak demand.

TABLE 1
1984 and 1985 PEAK DEMANDS
(Thousands of Megawatts)

NERC-U.S.	1984 Actual	1985 Actual	Actual Change %	1985 Forecast	Actual vs Forecast %
Summer Peak Demand	451.2	460.5	2.1	465.1	-1.0
Winter Peak Demand	436.3	428.7	-1.7	422.9	1.4
NERC-CANADA[a]					
Summer Peak Demand	42.3	43.9	3.9	43.8	0.3
Winter Peak Demand	59.4	62.7	5.5	60.8	3.2

a) Excludes Nova Scotia

Figure 1
SUMMER/WINTER PEAK DEMAND RATIOS (%)

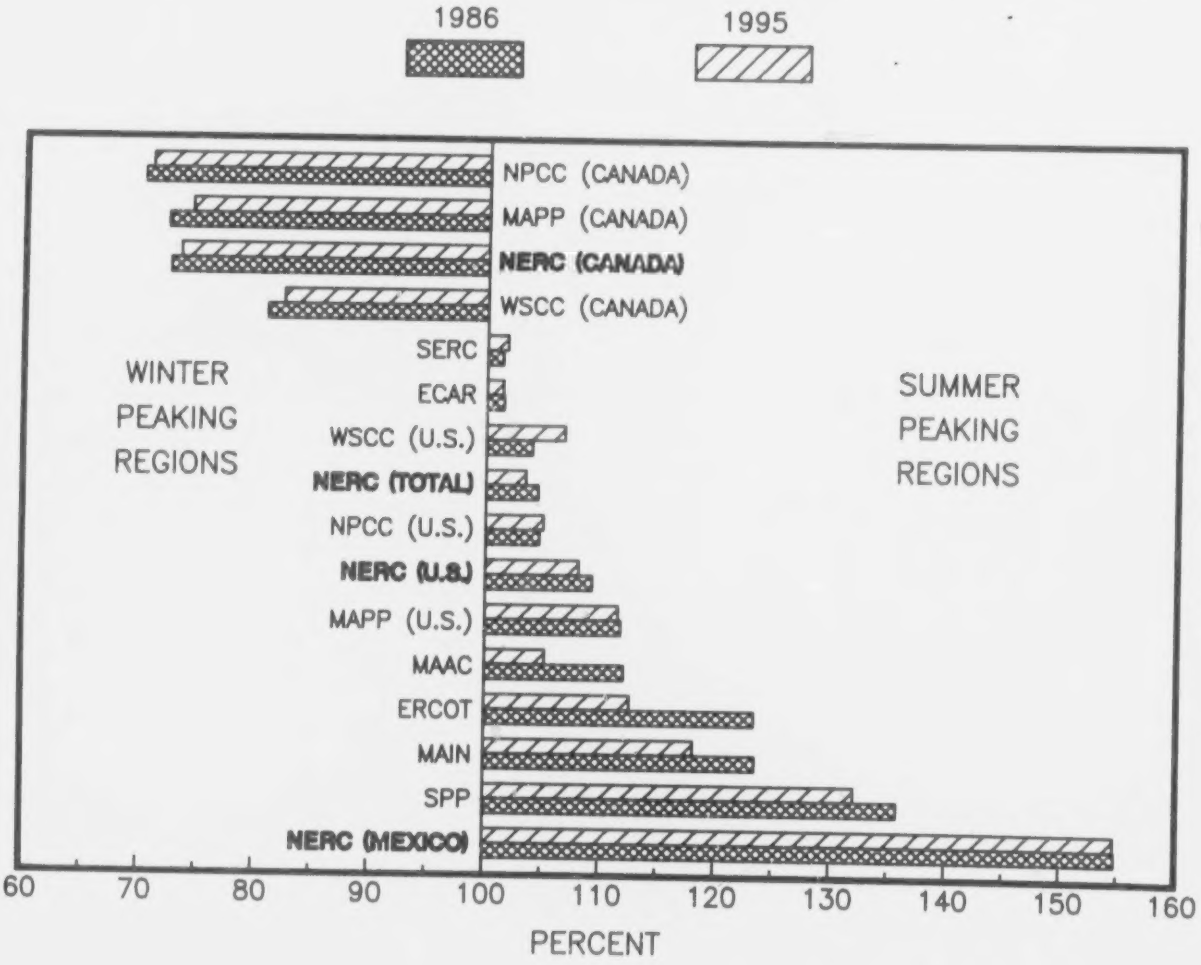


TABLE 2

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED PEAK DEMANDS - SUMMER - MW
(1986-1995 FORECAST)

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1986-1995 AVG. ANNUAL GROWTH(%)
NERC-U.S.												
ECAR	66293	68356	70041	72212	73815	75042	76345	77718	79188	80666	82217	2.1
ERCOT	38062	38957	40239	41247	42784	44394	46082	47613	49436	51200	53052	3.5
MAAC[a]	37053	36689	37049	37377	37764	38164	38610	39126	39620	40094	40593	1.1
MAIN	32432	35752	36211	36658	37246	37779	38400	39024	39649	40287	40940	1.5
CMNWLTH EDISON	13255	15250	15550	15850	16150	16450	16800	17150	17500	17850	18200	2.0
EAST MISSOURI	6124	6444	6526	6588	6660	6732	6814	6906	6999	7091	7193	1.2
S CENT ILLINOIS	5909	6535	6490	6495	6564	6632	6707	6791	6881	6981	7079	.9
WIS-UPPER MICH	7144	7523	7645	7725	7872	7965	8079	8177	8269	8365	8468	1.3
MAPP	19936	21541	22126	22478	22901	23334	23651	24059	24520	24956	25386	1.8
NPCC	40010	40820	41850	42740	43350	43820	44430	45183	46045	46916	47701	1.7
NEW YORK	22951	23020	23450	23840	24150	24420	24730	25070	25410	25790	26140	1.4
NEW ENGLAND	17059	17800	18400	18900	19200	19400	19700	20113	20635	21126	21561	2.2
SERC	98572	100818	103571	106023	109122	111675	114645	117165	119642	122134	124619	2.4
FLORIDA	21834	22012	22674	23309	23670	24255	25022	25639	26431	27071	27794	2.6
SOUTHERN	25510	25154	25932	26513	27225	27800	28660	29324	29891	30603	31265	2.4
TVA	18532	19279	19770	20174	21452	21859	22390	22934	23305	23710	24118	2.5
VACAR	32696	34373	35195	36027	36775	37762	38573	39268	40015	40750	41442	2.1
SPP	45026	47298	47827	48861	49921	51116	52435	53842	55226	56610	57928	2.3
SOUTHEAST	19585	20174	20021	20329	20645	21088	21530	22141	22740	23344	23935	1.9
WEST CENTRAL	15026	15833	16237	16676	17146	17630	18178	18704	19238	19787	20277	2.8
NORTHERN	10415	11291	11569	11856	12130	12398	12727	12997	13248	13479	13716	2.2
WSCC[b]	83119	84862	87292	89615	91773	93380	95448	97468	99988	102050	104108	2.3
NW POOL	25202	26049	26282	27270	27872	28285	28540	29049	29701	30145	30530	1.8
ROCKY MT-AREA	5739	6147	6462	6674	6893	7072	7368	7570	7777	8002	8213	3.3
ARIZ-N.MEX	10072	10469	11189	11588	11974	12351	12702	13116	13556	13971	14404	3.6
CALIF-SO NEV	42106	42375	43359	44170	45100	45709	46846	47835	48995	49992	50961	2.1
TOTAL(U.S.)	460503	475093	486206	497211	508676	518704	530046	541198	553314	564913	576544	2.2
NERC-CANADA												
MAPP	3874	4011	4233	4388	4494	4595	4692	4794	4902	5009	5103	2.7
NPCC	31549	32804	33959	34915	36263	37448	38531	39570	40643	41735	42868	3.0
NEW BRUNSWICK	1252	1379	1450	1491	1530	1568	1607	1645	1682	1718	1763	2.8
NOVA SCOTIA	1009	1052	1071	1118	1166	1214	1260	1307	1359	1411	1466	3.8
ONTARIO	16135	16395	16874	17296	17764	18230	18699	19217	19810	20423	21059	2.8
QUEBEC	13153	13978	14564	15010	15803	16436	16965	17401	17792	18183	18580	3.2
WSCC	9516	10247	10543	10894	11146	11504	11870	12228	12505	12861	13174	2.8
TOTAL(CANADA)	44939	47062	48735	50197	51903	53547	55093	56592	58050	59605	61145	
NERC-MEXICO												
WSCC	619	644	688	742	788	880	934	1010	1068	1130	1196	7.1
TOTAL(MEXICO)	619	644	688	742	788	880	934	1010	1068	1130	1196	7.1
NERC-TOTAL	506061	522799	535629	548150	561367	573131	586073	598800	612432	625648	638885	2.3

a) Contractually interruptible loads have been subtracted.
b) The sum of the subregional peak demands do not necessarily equal the coincident WSCC(U.S.) total because of subregional peak load diversity.

TABLE 3
NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED PEAK DEMANDS - WINTER - MW
(1986-1995 FORECAST)

	ACTUAL 1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1986/87-1995/96 AVG. ANNUAL GROWTH(%)
NERC-U S.												
ECAR	65667	67355	69380	71077	72375	73694	75079	76496	78077	79609	81079	2.1
ERCOT	29776	31574	32845	34332	35967	37632	39489	41249	43208	45146	47120	4.5
MAAC[a]	31652	32742	33323	33944	34638	35338	36038	36696	37337	37968	38590	1.8
MAIN	29060	28953	29499	30095	30752	31373	32017	32640	33296	33975	34661	2.0
CMNWLTH EDISON	11713	11440	11670	11900	12140	12380	12630	12880	13140	13400	13670	2.0
EAST MISSOURI	5039	5168	5330	5482	5644	5806	5998	6170	6352	6544	6736	3.0
S CENT ILLINOIS	5487	5532	5531	5591	5685	5775	5876	5983	6097	6217	6334	1.5
WIS-UPPER MICH	6821	6813	6968	7112	7283	7412	7513	7607	7707	7814	7921	1.7
MAPP	18803	19269	19673	20018	20406	20807	21234	21646	22044	22433	22760	1.9
NPCC	38233	39003	39940	40660	41220	41740	42370	43026	43879	44679	45419	1.7
NEW YORK	20832	21030	21440	21760	22120	22440	22770	23110	23520	23900	24260	1.6
NEW ENGLAND	17401	17973	18500	18900	19100	19300	19600	19916	20359	20779	21159	1.8
SERC	102894	99450	101471	104193	106524	109366	111867	114351	117110	119806	122442	2.3
FLORIDA	24369	24788	25310	25742	26245	27061	27716	28715	29671	30585	31221	2.6
SOUTHERN	22404	21144	21508	21761	22418	22987	23469	23826	24395	24949	25574	2.1
TVA	20825	19233	19478	20593	20841	21481	22100	22553	23028	23506	24117	2.5
VACAR	35296	34285	35175	36097	37020	37837	38582	39257	40016	40766	41530	2.2
SPP	34618	34829	35816	36453	37426	38487	39537	40625	41717	42822	43863	2.6
SOUTHEAST	15054	14865	15046	15182	15487	15902	16212	16643	17069	17506	17919	2.1
WEST CENTRAL	11696	11647	12208	12461	12895	13326	13789	14226	14686	15151	15578	3.3
NORTHERN	7868	8317	8562	8810	9044	9259	9536	9756	9962	10165	10366	2.5
WSCC[b]	77997	81592	83446	85597	87206	89267	90880	93256	95245	97225	97473	2.0
NW POOL	32359	34237	35040	36078	36704	37213	37762	38538	39242	39820	38573	1.3
ROCKY MT-AREA	5181	6181	6351	6553	6740	7013	7214	7419	7630	7847	7702	2.5
ARIZ-N.MEX	7991	8463	8686	8946	9270	9571	9848	10205	10508	10826	10966	2.9
CALIF-SO.NEV	32466	33165	34113	34583	35464	35931	36766	37780	38650	39387	40232	2.2
TOTAL(U.S.)	428700	434767	445393	456349	466514	477704	488511	499985	511913	523663	533407	2.3
NERC-CANADA												
MAPP	4950	5547	5754	5912	6045	6179	6318	6454	6600	6737	6862	2.4
NPCC	46864	46699	48109	49936	50941	53057	54585	56093	57627	59182	60474	2.9
NEW BRUNSWICK	2001	2006	2102	2180	2246	2310	2374	2436	2495	2549	2616	3.0
NOVA SCOTIA	1382	1409	1471	1534	1597	1658	1720	1788	1857	1929	2004	4.0
ONTARIO	20586	20188	20713	21301	21899	22462	23086	23796	24533	25297	25777	2.8
QUEBEC	22895	23096	23823	24921	25199	26627	27405	28073	28742	29407	30077	3.0
WSCC	12299	12663	12933	13375	13663	14058	14486	14913	15230	15629	15994	2.6
TOTAL(CANADA)	64113	64909	66796	69223	70649	73294	75389	77460	79457	81548	83330	2.8
NERC-MEXICO												
WSCC	397	416	444	479	517	568	603	653	690	730	773	7.1
TOTAL(MEXICO)	397	416	444	479	517	568	603	653	690	730	773	7.1
NERC-TOTAL	493210	500092	512633	526051	537680	551566	564503	578098	592060	605941	617510	2.4

a) Contractually interruptible loads have been subtracted.

b) The sum of the subregional peak demands do not necessarily equal the coincident WSCC(U.S.) total because of subregional peak load diversity.

Figure 2
SUMMER PEAK DEMAND BANDWIDTH - NERC (U.S.)

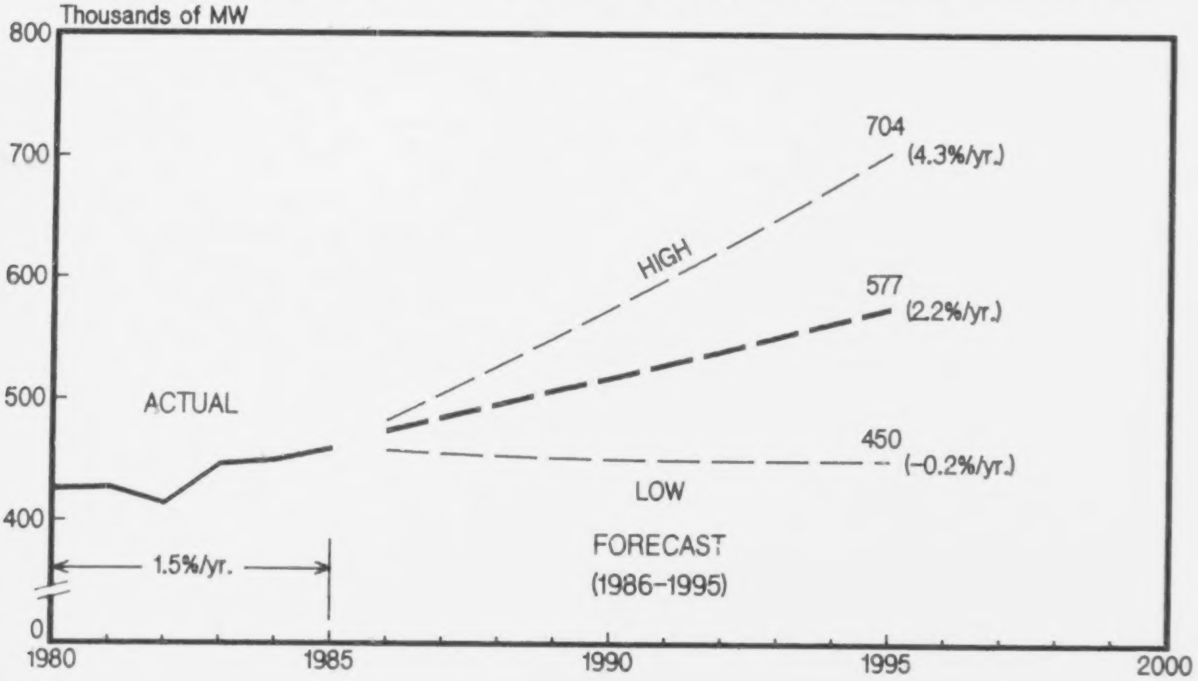
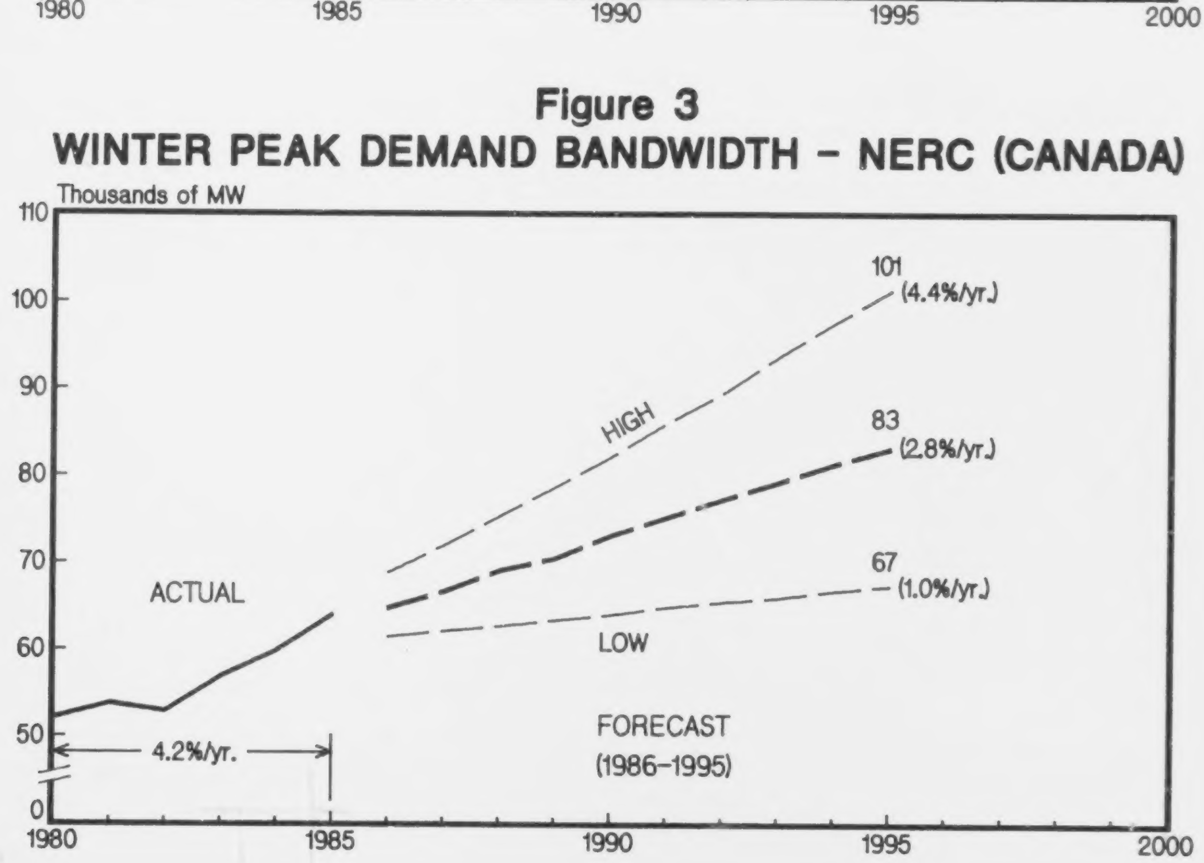


Figure 3
WINTER PEAK DEMAND BANDWIDTH - NERC (CANADA)



ANNUAL NET ENERGY FOR LOAD

The annual net energy for load (NEL) represents the annual electrical energy needed to serve the utilities' customers. NEL includes transmission losses and represents the electrical energy generated by the utilities' own generating sources plus electrical energy purchases from other utilities and from non-utility generation facilities, less electrical energy sales to other utilities. NEL does not include energy pumping requirements for pumped storage generating facilities.

1984 and 1985 NEL

Table 4 compares 1984 and 1985 NEL in the United States and Canada. The annual NEL generated by U.S. utilities in 1985 exceeded that generated in 1984 by 2.2% and essentially matched the 1985 projection. In Canada, 1985 electrical energy generated by utilities exceeded 1984 generation by 5.4% and exceeded the 1985 forecast by 2.9%.

1986-1995 Projections

Details of the regional and subregional NEL projections, their associated average annual growth rates, and last year's NEL actuals are shown in Table 5.

The NERC-TOTAL NEL is projected to increase by 692 million MWh over the forecast period — corresponding to an average annual growth rate of 2.4%. As in the case for peak demands, the higher annual NEL growth rates for NERC-CANADA and NERC-MEXICO are offset by the NERC-U.S. annual NEL growth rate of 2.3%.

Annual Load Factors

The projected annual load factors for the NERC regions as well as for NERC-U.S., NERC-CANADA, NERC-MEXICO, and NERC-TOTAL are shown in Figure 4. The load factors are calculated by dividing the annual NEL of Table 5 by the product of peak demand (the greater of the summer or previous winter peak demands of Table 2 or 3) and 8,760 hours per year. This load factor ratio is then multiplied by 100 to express the load factor in percent. The regional load factors range from over 65% in WSCC (Canada), WSCC (U.S.), and ECAR to the low 50's in NERC-MEXICO and SPP.

Forecast Uncertainty

To illustrate the uncertainty in the forecasting process, high and low bounds have also been defined around the NERC-U.S. and NERC-CANADA annual NEL projections as shown in Figures 5 and 6, respectively. These bounds are defined such that there is approximately an 80% chance that future annual NEL for the U.S. and Canada will fall within the bounds as set by their respective bandwidths.

NEL bounds in Figure 5 were developed by applying a forecast annual load factor to the peak demand projections of Figure 2. NEL bounds for the Canadian projections of Figure 6 were derived by adding the respective high and low NEL projections as provided by the Canadian utilities.

It would be incorrect to apply the ranges of the energy bandwidths shown in Figures 5 and 6 to the energy forecasts of any NERC region or subregion, or to those of any individual utility. The high and low bounds apply only to the NERC-U.S. and NERC-CANADA aggregated projections of NEL.

TABLE 4
1984 AND 1985 NET ENERGY FOR LOAD
(Millions of MWh)

	1984 Actual	1985 Actual	Actual Change %	1985 Forecast	Actual vs Forecast %
NERC-U.S.	2445.6	2499.2	2.2	2499.4	-0.01
NERC-CANADA[a]	320.6	338.0	5.4	328.6	2.9

a) Excludes Nova Scotia

Figure 4
ANNUAL LOAD FACTORS (%)

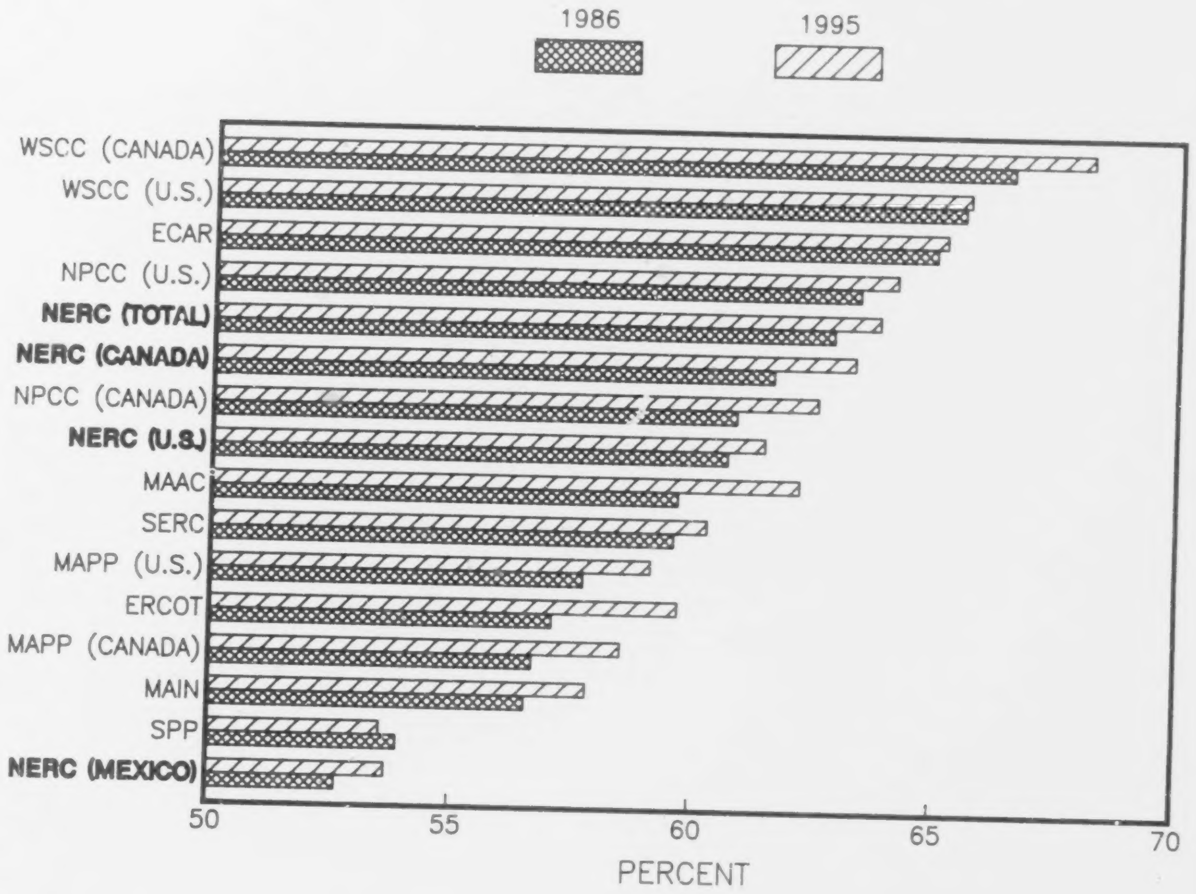


TABLE 5

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED ANNUAL NET ENERGY FOR LOAD-Millions kWh
(1986-1995 FORECAST)

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1986-1995 AVG. ANNUAL GROWTH(%)
NERC-U.S												
ECAR	387514	389000	399400	414800	424000	430900	437900	445700	453300	461300	469400	2.1
ERCOT	190758	194[illegible]1	201561	207854	216609	226358	236213	245580	256098	266627	277404	4.0
MAAC	189671	191748	194009	196952	200166	203569	207168	210691	214190	217718	221084	1.6
MAIN	173589	177114	179948	182356	185949	189341	192812	196461	199982	203637	207358	1.8
CMNWLTH EDISON	69676	70900	72300	73750	75225	76750	78300	79850	81450	83100	84750	2.0
EAST MISSOURI	29978	30454	31057	31583	32127	32682	33301	34013	34721	35432	36181	1.9
S CENT ILLINOIS	32615	33230	33097	32907	33430	33939	34446	35046	35585	36163	36739	1.1
WIS-UPPER MICH	41318	42530	43494	44116	45167	45970	46765	47552	48226	48942	49688	1.7
MAPP	105797	108923	112276	114469	116723	119250	121429	123800	126512	128977	131469	2.1
NPCC	220782	226628	232399	237903	241708	245065	248972	253487	258365	263335	268044	1.9
NEW YORK	126032	127524	129700	132032	133792	135633	137547	139552	141443	143664	145752	1.5
NEW ENGLAND	94750	99104	102699	105871	107916	109432	111425	113935	116922	119671	122292	2.4
SERC	522648	526291	540264	554023	570763	585233	603028	617495	629872	644278	657999	2.5
FLORIDA	112742	111929	115897	119685	123010	126473	129930	133223	136946	140711	144068	2.8
SOUTHERN	126793	126883	130977	132208	133887	136967	143010	146107	148574	151915	155433	2.3
TVA	108322	107302	108429	112161	119702	121937	125152	127942	129693	131612	133673	2.5
VACAR	174791	180177	184961	189949	194164	199856	204936	210223	214659	220040	224825	2.5
SPP	229677	223357	224517	229434	233950	239590	245599	252642	259087	265426	271718	2.2
SOUTHEAST	108039	102130	100364	101671	102520	104489	106512	109666	112284	114762	117406	1.6
WEST CENTRAL	74145	73193	74857	76732	79023	81352	84027	86746	89366	92087	94526	2.9
NORTHERN	47493	48034	49296	51031	52407	53749	55060	56230	57437	58577	59786	2.5
WSCC	478790	487253	501854	516798	529042	538779	549603	562824	575576	588268	598724	2.3
NW POOL	185649	183299	189337	196364	200731	203525	205251	209202	213377	216753	219006	2.0
ROCKY MT-AREA	35404	37177	38421	39668	40998	41936	43127	44209	45310	46878	47886	2.9
ARIZ-N MEX	50635	52380	55960	57241	58801	60657	62421	64390	66383	68341	70452	3.3
CALIF-SO NEV	207102	214397	218136	223525	228512	232661	238804	245023	250506	256296	261380	2.2
TOTAL(U.S.)	2499226	2525135	2586228	2654589	2718912	2778085	2842724	2908680	2972982	3039566	3103200	2.3
NERC-CANADA												
MAPP	26724	27547	29134	30207	30974	31676	32344	33047	33771	34510	35177	2.8
NPCC	246840	249943	260187	268895	280784	289282	298296	306425	314275	322626	331311	3.2
NEW BRUNSWICK	10071	10738	11185	11593	11941	12259	12577	12891	13198	13489	13824	2.8
NOVA SCOTIA	7208	7308	7572	7917	8263	8607	8950	9269	9649	10011	10401	4.0
ONTARIO	116049	117719	121066	124432	127437	130883	134245	138351	142219	146624	151189	2.8
QUEBEC[a]	113512	113178	120364	124953	133143	137533	142524	145914	149209	152502	155897	3.6
WSCC	71673	73827	76189	78617	80567	83027	85702	88526	90746	93164	95559	2.9
TOTAL(CANADA)	345237	350317	365510	377719	392425	403985	416342	427998	438792	450300	462047	3.1
NERC-MEXICO												
WSCC	2612	2970	3274	3637	3883	4120	4368	4626	4955	5277	5623	7.3
TOTAL(MEXICO)	2612	2970	3274	3637	3883	4120	4368	4626	4955	5277	5623	7.3
NERC-TOTAL	2847075	2878422	2955012	3035945	3115220	3186190	3263434	3341304	3416729	3495143	3570870	2.4

a) Excludes a special program of secondary sales to industrial customers in Québec ending in 1988.

Figure 5
NET ENERGY FOR LOAD BANDWIDTH - NERC (U.S.)

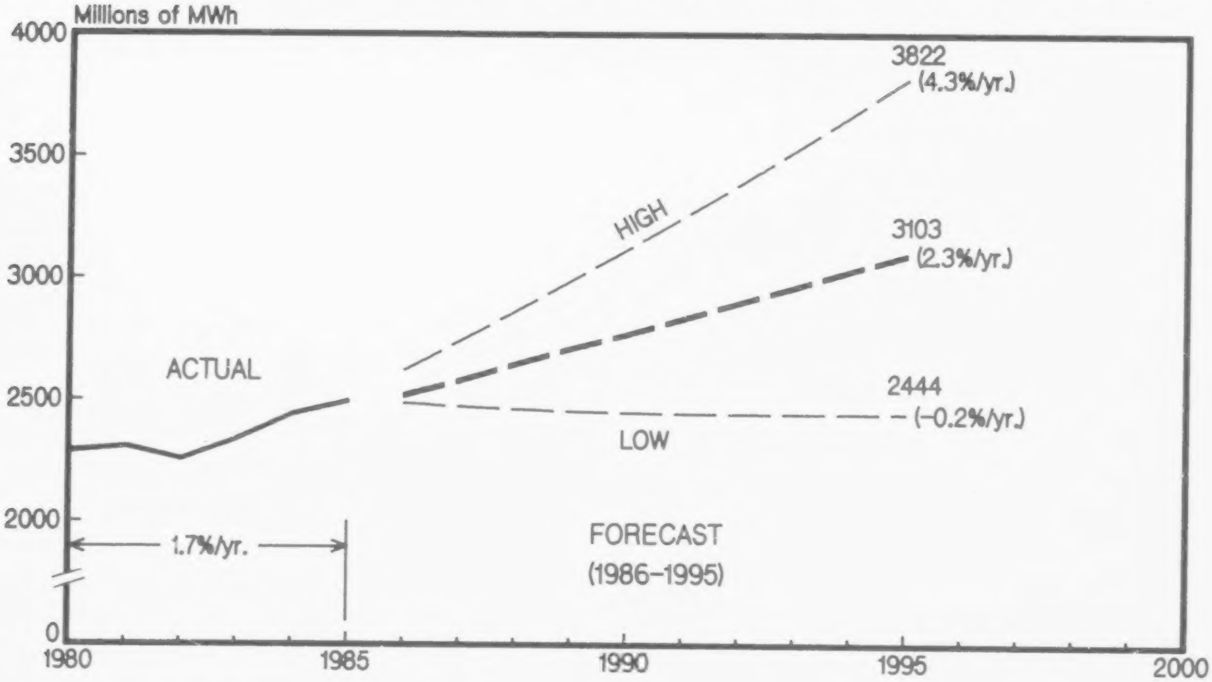
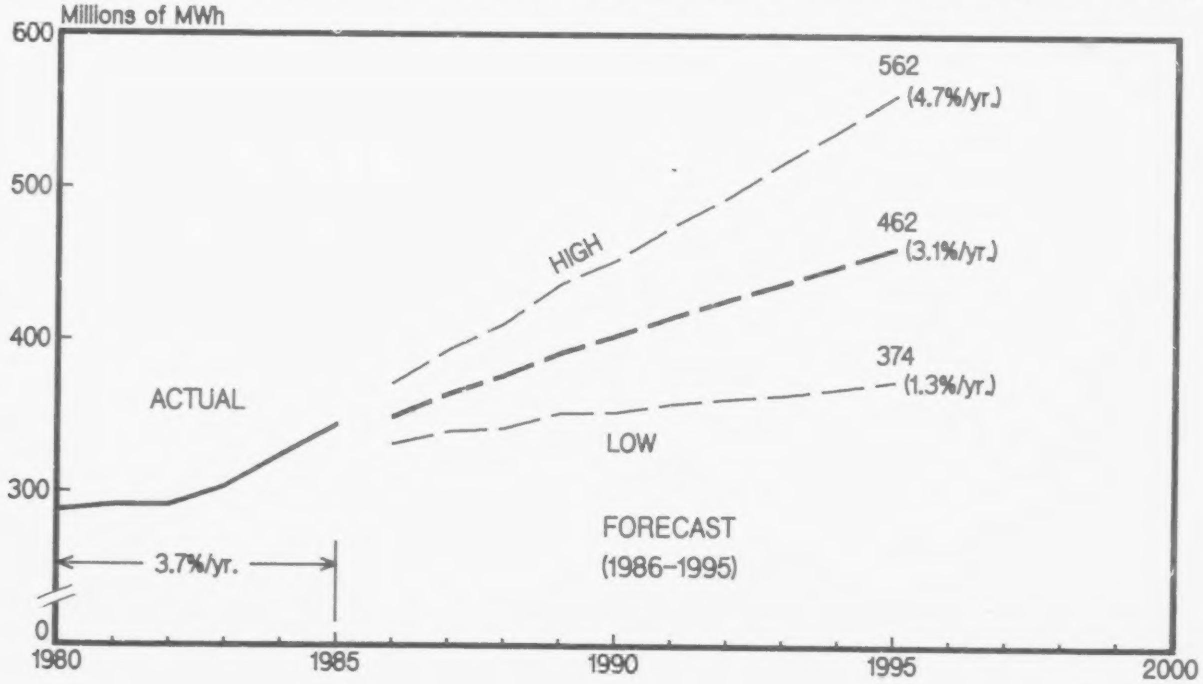


Figure 6
NET ENERGY FOR LOAD BANDWIDTH - NERC (CANADA)



PLANNED CAPACITY RESOURCES

The planned capacity resources include the total dependable generating capacity which is existing, presently under construction, or in various stages of planning, plus any scheduled capacity purchases from other utilities or non-utility generation sources, less any capacity sales. The planned capacity resources for the nine Regional Reliability Councils and their subregions are shown in Tables 6 (summer) and 7 (winter). These planned resources correspond with the projected seasonal peak demands for the regions and subregions shown in Tables 2 and 3.

To serve the projected demands, NERC systems are planning to increase their net capacity resources by about 91,000 MW (summer) and 86,000 MW (winter) over the 1986-1995 period — corresponding to average annual growth rates of 1.3% (summer) and 1.2% (winter). The comparable average annual growth rates for the regions and subregions of NERC are shown in the last column of Tables 6 and 7. Overall, the total capacity resources in winter are greater than those of the previous summer season.

The realization of these plans for capacity resources is contingent upon the completion, as scheduled, of utility and non-utility generating units which are in various stages of planning, design, licensing or construction. A breakdown by fuel type of the installed dependable generating capacity included in these planned resources is shown in Tables 12 (summer) and 15 (winter) and Appendix A.

Estimated Capacity Margins

To adequately supply projected demand requirements, planned capacity resources must also include a sufficient capacity margin above the demand to provide for scheduled maintenance and forced outages of generating units, and for other system operating requirements.

The amount by which the planned capacity resources exceed the projected peak demand is called the margin. Summer and winter margins in megawatts for the NERC regions are shown in Figure 7. In calculating these margins, demands which are interruptible by contract have been subtracted from the projected peak demands of Tables 2 and 3. The adjusted peak demands were then subtracted from the planned resources of Tables 6 and 7 respectively to obtain the megawatt margins in Figure 7.

Capacity margin in percent has been calculated by dividing the margin by total planned resources and multiplying by 100. Estimated capacity margins for the NERC regions and subregions are shown in Tables 8 (summer) and 9 (winter).

The margins of Figure 7 and the capacity margins of Tables 8 and 9 are not themselves sufficient indices of electric power supply adequacy, security, or reliability. Capacity margins vary from region to region due to variations in regional characteristics, which, for example, include the differences in sizes and types of generating units, number and capability of transmission interconnections, physical characteristics of the region and the associated geographical configuration of the electric utility systems, and operating agreements among interconnected systems. However, the margin and capacity margin projections as shown are consistent with the Regional Councils' responses to DOE's IE-411 data report requests, and they are included here for convenience.

Figure 7

ESTIMATED MARGINS AT THE TIME OF REGIONAL PEAK DEMAND

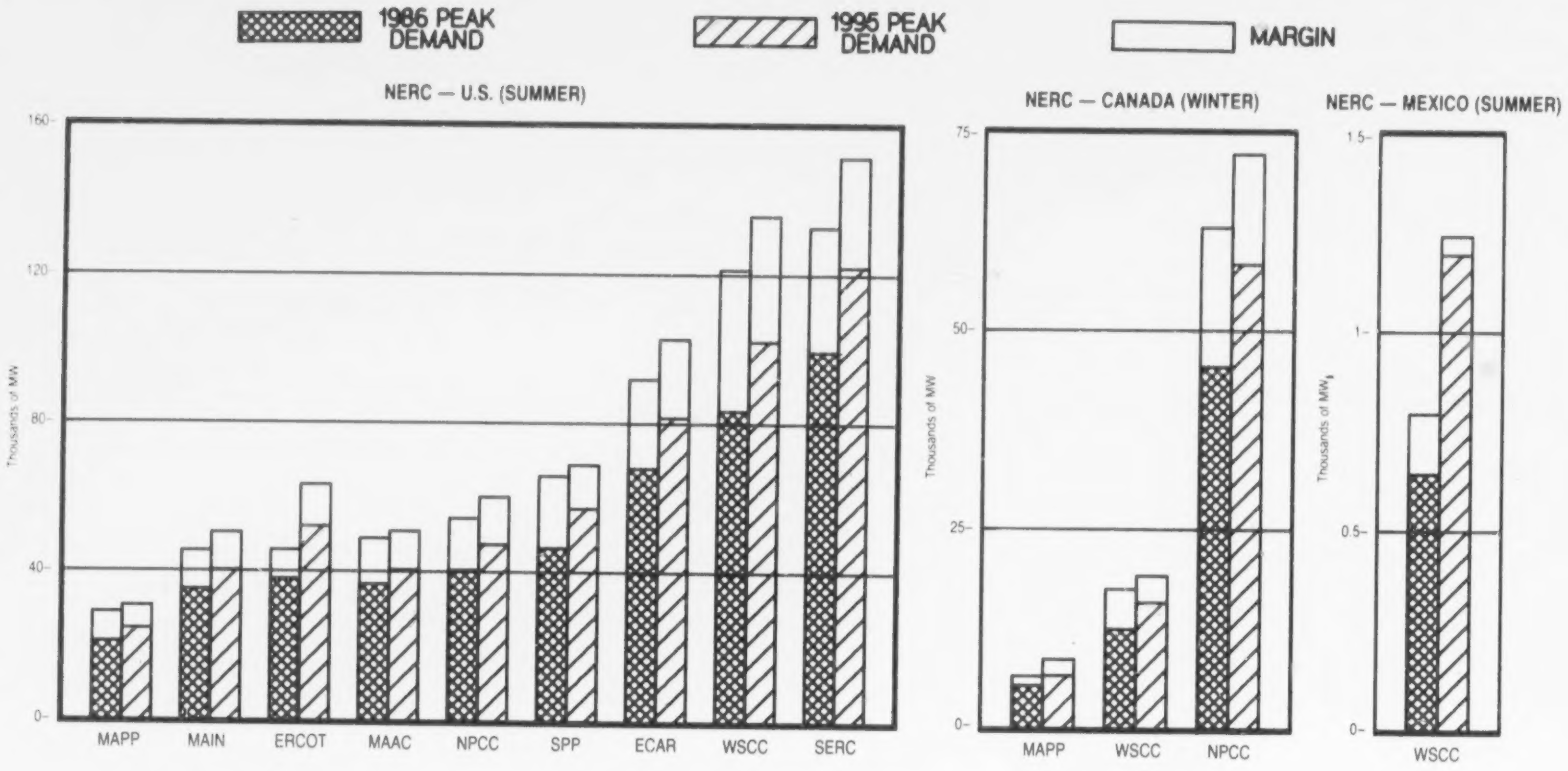


TABLE 6

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
1986-1995 PLANNED CAPACITY RESOURCES - SUMMER - MW
(GENERATING CAPACITY+SCHEDULED CAPACITY PURCHASES-CAPACITY SALES)

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1986-1995 AVG. ANNUAL GROWTH(%)
NERC-U.S.											
ECAR	91958	95289	96319	97994	97969	100386	100632	102114	102297	102735	1.2
ERCOT	45806	48610	51629	52939	53736	54713	56838	58758	60945	63360	3.7
MAAC	48996	50038	50103	50157	50219	50123	50712	50325	50347	50895	.4
MAIN	45536	48389	48076	49319	49239	49432	49563	50277	50389	50424	1.1
CMNWLTH EDISON	19071	21194	20882	21972	21972	21972	21972	21972	21972	21972	1.6
EAST MISSOURI	7989	7969	7986	7966	7971	8047	8047	8343	8348	8349	.5
S CENT ILLINOIS	8633	9583	9583	9583	9583	9583	9583	9879	9879	9841	1.5
WIS-UPPER MICH	9843	9643	9625	9798	9713	9830	9961	10083	10190	10262	.5
MAPP	28998	29221	29754	29782	30111	30305	30305	30202	30271	30715	6
NPCC	54453	56919	57507	57897	58232	59874	59716	59652	60018	60165	1.1
NEW YORK	31930	33432	33561	33620	33893	33959	34180	34207	34581	34691	.9
NEW ENGLAND	22523	23487	23942	24277	24339	25915	25536	25445	25437	25474	1.4
SERC	132845	138649	140557	144065	144512	146501	147887	148093	149506	151607	1.5
FLORIDA	30036	31061	31398	32184	32282	32431	32555	31269	30655	31460	.5
SOUTHERN	30193	31501	31456	34077	34154	34635	35382	36556	37206	37646	2.5
TVA	29172	30342	31712	31712	31712	31712	31712	31712	32924	32924	1.4
VACAR	43444	45745	45991	46092	46364	47723	48238	48556	48721	49573	1.5
SPP	65883	66161	66030	65960	66178	66157	65585	66896	67362	68883	.5
SOUTHEAST	29481	29493	29320	29019	29080	29297	28262	28373	27974	28870	-.2
WEST CENTRAL	21144	21430	21364	21427	21530	21676	22044	22458	23106	23702	1.3
NORTHERN	15258	15238	15346	15514	15568	15184	15279	16065	16282	16311	.7
WSCC[a]	121418	124994	127985	128861	130621	131096	131943	132872	134835	135853	1.3
NW POOL	44922	44623	46534	46519	46549	47147	47198	47268	47311	46927	.5
ROCKY MT-AREA	8919	9159	9305	9313	9353	9467	9469	9470	10282	10282	1.6
ARIZ-N.MEX	13764	15413	15878	16176	17060	17478	17503	17553	17636	17885	3.0
CALIF-SO.NEV	55163	57005	58850	59506	60826	61201	62999	63794	64916	65715	2.0
TOTAL(U.S.)	635893	658270	667956	676974	680817	688587	693181	699189	705970	714633	1.3
NERC-CANADA											
MAPP	6631	6781	6981	7081	7081	8073	8371	8491	8763	8763	3.1
NPCC	60160	61521	62626	64109	63256	63651	64956	66473	67489	68245	1.4
NEW BRUNSWICK	2754	2754	2754	2754	2754	2754	3174	3174	3174	3174	1.6
NOVA SCOTIA	1798	1798	1951	1951	1951	2251	2251	2251	2251	2251	2.5
ONTARIO	28672	29927	30813	31694	31744	31774	32685	33596	34007	34166	2.0
QUEBEC	26936	27042	27108	27710	26807	26872	26846	27452	28057	28654	.7
WSCC	17794	17794	17794	17794	18133	18391	18777	18777	19137	19137	.8
TOTAL(CANADA)	84585	86096	87401	88984	88470	90115	92104	93741	95389	96145	1.4
NERC-MEXICO											
WSCC	796	808	853	998	998	998	1048	1243	1243	1243	5.1
TOTAL(MEXICO)	796	808	853	998	998	998	1048	1243	1243	1243	5.1
NERC-TOTAL	721274	745174	756210	766956	770285	779700	786333	794173	802602	812021	1.3

a) Since the subregional peak demands may occur in different months than the coincident total WSCC(U.S.) peak demand, the sum of the individual subregional resources based on those peak demands may not always equal the WSCC(U.S.) total. Also, the sum of the subregional resources does not equal the total WSCC(U.S.) resources because in some cases firm power transfers have been reported for which either the buying or the selling system has not yet been identified.

TABLE 7

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
1986-1995 PLANNED CAPACITY RESOURCES - WINTER - MW
(GENERATING CAPACITY+SCHEDULED CAPACITY PURCHASES-CAPACITY SALES)

	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1986/87-1995/96 AVG. ANNUAL GROWTH(%)
NERC-U.S.											
ECAR	96799	97373	99468	99486	99881	101844	102590	103601	103883	104545	.9
ERCOT	46936	50931	51791	53099	54546	56094	57893	60273	62747	64002	3.5
MAAC	51370	52437	52502	52514	51816	52169	52880	52743	52756	53304	.4
MAIN	47045	49321	50170	50241	50257	50374	50623	51312	51344	51378	1.0
CMNWLTH EDISON	19248	21713	22521	22521	22521	22521	22521	22521	22521	22521	1.8
EAST MISSOURI	8034	8039	8080	8085	8090	8090	8090	8393	8398	8398	.5
S CENT ILLINOIS	9753	9753	9753	9753	9753	9753	9753	10049	10049	10011	.3
WIS-UPPER MICH	10010	9816	9816	9882	9893	10010	10259	10349	10376	10448	.5
MAPP	28871	29639	29679	29955	30239	30333	30213	31096	31083	31528	1.0
NPCC	55485	57982	58517	58773	60693	60427	60510	60526	60836	60615	1.0
NEW YORK	31604	33664	33785	33848	34124	34251	34411	34438	34812	34922	1.1
NEW ENGLAND	23881	24318	24732	24925	26569	26176	26099	26088	26024	25693	.8
SERC	137938	141050	144150	145917	146169	148466	149941	151295	151338	154794	1.3
FLORIDA	31533	32427	33037	33239	33355	33535	33175	32361	31755	32636	.4
SOUTHERN	30289	31370	32466	33867	33728	34611	35736	36536	37025	37423	2.4
TVA	30901	30701	31871	31871	31871	31871	31871	33083	33083	34295	1.2
VACAR	45215	46552	46776	46940	47215	48449	49159	49315	49475	50440	1.2
SPP	66224	66451	66399	66277	66325	66203	66042	67256	68598	69889	.6
SOUTHEAST	29486	29333	29157	28834	29320	28972	28373	28121	28770	29285	-.1
WEST CENTRAL	21267	21511	21551	21614	21511	21780	22123	22821	23296	24042	1.4
NORTHERN	15471	15607	15691	15829	15494	15451	15546	16314	16532	16562	.8
WSCC[a]	123840	127962	128799	130466	131182	132208	132926	134151	135996	136830	1.1
NW POOL	46509	47415	47477	47490	47514	47471	47483	47551	47772	48025	.4
ROCKY MT-AREA	9194	9409	9436	9475	9575	9579	9582	9584	10394	10396	1.4
ARIZ-N.MEX	14595	15849	15616	16239	16953	17371	17478	17586	17680	17812	2.2
CALIF-SO.NEV	52631	55012	56727	57513	58653	59004	59995	60694	61986	62921	2.0
TOTAL(U.S.)	654508	673146	681475	686728	691108	698118	703618	712253	718581	726885	1.2
NERC-CANADA											
MAPP	6595	6745	6945	7045	7285	8157	8455	8455	8727	8727	3.2
NPCC	63038	63264	64274	66294	66333	67938	69455	70290	71167	72340	1.5
NEW BRUNSWICK	2754	2754	2754	2754	2754	3174	3174	3174	3174	3174	1.6
NOVA SCOTIA	1798	1951	1951	1951	1951	2251	2251	2251	2251	2551	4.0
ONTARIO	30304	30309	31190	32121	32151	33062	33973	34203	34482	34573	1.5
QUEBEC	28182	28250	28379	29468	29477	29451	30057	30662	31260	32042	1.4
WSCC	17514	17514	17514	17845	18099	18485	18485	18845	18845	19205	1.0
TOTAL(CANADA)	87147	87523	88733	91184	91717	94580	96395	97590	98739	100272	1.6
NERC-MEXICO											
WSCC	852	808	853	998	998	998	1048	1243	1243	1243	4.3
TOTAL(MEXICO)	852	808	853	998	998	998	1048	1243	1243	1243	4.3
NERC-TOTAL	742507	761477	771061	778910	783823	793696	801061	811086	818563	828400	1.2

a) Since the subregional peak demands may occur in different months than the coincident total WSCC(U.S.) peak demand, the sum of the individual subregional resources based on those peak demands may not always equal the WSCC(U.S.) total. Also, the sum of the subregional resources does not equal the total WSCC(U.S.) resources because in some cases firm power transfers have been reported for which either the buying or the selling system has not yet been identified.

TABLE 8

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL

LOADS & RESOURCES DATA SYSTEM

ESTIMATED CAPACITY MARGINS AT THE TIME OF SUMMER PEAK DEMAND-%(CAPACITY RESOURCES)

(1986-1995 FORECAST)

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.										
ECAR	26.1	26.9	25.6	25.2	23.9	24.5	23.3	23.0	21.6	20.5
ERCOT	16.8	19.2	21.6	20.7	18.9	17.3	17.7	17.3	17.4	17.6
MAAC	25.1	26.0	25.4	24.7	24.0	23.0	22.8	21.3	20.4	20.2
MAIN	22.8	26.5	25.1	25.8	24.6	23.6	22.5	22.4	21.3	20.1
CMNWLTH EDISON	21.1	27.6	25.1	27.4	26.0	24.4	22.9	21.3	19.7	18.1
EAST MISSOURI	21.5	20.2	19.6	18.5	17.7	17.4	16.2	18.1	17.0	15.8
S CENT ILLINOIS	24.6	32.6	32.5	31.8	31.1	30.3	29.4	30.6	29.6	28.3
WIS-UPPER MICH	25.5	23.1	22.1	22.0	20.4	20.3	20.3	20.4	20.4	20.0
MAPP	27.2	25.8	26.1	24.9	24.5	24.1	22.8	21.2	20.1	19.8
NPCC	25.5	26.9	26.1	25.5	25.1	26.2	24.7	23.2	22.2	21.1
NEW YORK	28.6	30.5	29.7	28.9	28.6	27.9	27.3	26.4	26.1	25.3
NEW ENGLAND	21.0	21.7	21.1	20.9	20.3	24.0	21.2	18.9	16.9	15.4
SERC	25.2	26.4	25.7	25.5	24.0	23.1	22.2	20.7	19.8	19.4
FLORIDA	28.5	28.9	27.8	28.6	27.1	25.2	23.7	18.2	14.6	14.7
SOUTHERN	17.3	18.3	16.3	20.7	19.2	17.8	17.7	18.8	18.3	17.5
TVA	33.9	34.8	36.4	32.4	31.1	29.4	27.7	26.5	28.0	26.7
VACAR	22.4	24.6	23.4	22.1	20.5	21.2	20.7	19.8	18.7	18.9
SPP	29.3	28.8	27.1	25.4	23.8	21.8	19.0	18.5	17.0	17.0
SOUTHEAST	32.8	33.4	32.0	30.2	28.9	27.9	23.1	21.4	18.1	18.6
WEST CENTRAL	26.0	25.0	22.6	20.6	18.8	16.9	15.9	15.1	15.1	15.2
NORTHERN	27.1	25.2	23.9	22.9	21.5	17.0	15.7	18.3	18.0	16.7
WSCC	31.2	31.5	31.4	30.2	30.0	28.6	27.5	26.2	25.7	24.8
NW POOL	44.1	42.9	43.4	42.2	41.4	41.5	40.5	39.3	38.4	37.1
ROCKY MT-AREA	32.7	31.1	29.9	27.6	26.0	23.8	21.7	19.5	23.7	21.7
ARIZ-N.MEX	25.5	31.6	31.1	30.0	31.4	31.1	28.8	26.5	24.5	23.1
CALIF-SO.NEV	23.3	24.1	25.1	24.4	25.0	23.6	24.2	23.3	23.1	22.6
TOTAL(U.S.)	26.2	27.1	26.6	25.9	24.9	24.1	23.0	22.0	21.1	20.4
NERC-CANADA										
MAPP	41.5	39.7	39.2	38.6	37.2	43.8	44.6	44.2	44.7	43.7
NPCC	47.5	46.8	46.4	45.5	44.3	41.8	41.5	41.4	40.8	40.0
NEW BRUNSWICK	51.5	48.9	47.4	46.0	46.8	43.2	49.5	48.3	47.2	45.8
NOVA SCOTIA	42.6	41.5	43.7	41.3	36.8	44.9	42.8	40.5	38.2	35.8
ONTARIO	45.0	45.7	46.2	46.2	44.8	43.7	44.0	44.0	43.1	41.8
QUEBEC	50.1	48.2	46.7	45.0	4[illegible].9	39.1	37.5	37.5	37.5	37.5
WSCC	43.2	41.6	39.6	38.2	37.4	36.3	35.7	34.2	33.6	32.0
TOTAL(CANADA)	46.1	45.2	44.4	43.5	42.3	40.8	40.6	40.2	39.7	38.7
NERC-MEXICO										
WSCC	19.1	14.9	13.0	21.0	11.8	6.4	3.6	14.1	9.1	3.8
TOTAL(MEXICO)	19.1	14.9	13.0	21.0	11.8	6.4	3.6	14.1	9.1	3.8
NERC-TOTAL	28.5	29.2	28.6	27.9	26.9	26.0	25.0	24.1	23.3	22.6

TABLE 9

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ESTIMATED CAPACITY MARGINS AT THE TIME OF WINTER PEAK DEMAND-%(CAPACITY RESOURCES)
(1986-1995 FORECAST)

	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96
NERC-U.S.										
ECAR	30.8	29.3	29.1	27.8	26.7	26.8	25.9	25.1	23.9	22.9
ERCOT	33.9	36.5	34.6	33.2	31.9	30.5	29.7	29.2	29.0	27.3
MAAC	36.3	36.5	35.3	34.0	31.8	30.9	30.6	29.2	28.0	27.6
MAIN	39.7	41.5	41.3	40.1	38.9	37.7	36.8	36.4	35.1	33.8
CMNWLTH EDISON	41.6	47.2	48.0	47.0	45.9	44.8	43.7	42.5	41.4	40.2
EAST MISSOURI	37.8	35.8	34.3	32.3	30.3	27.9	25.8	26.3	24.0	21.8
S CENT ILLINOIS	43.6	43.6	43.0	42.0	41.1	40.0	38.9	39.6	38.4	37.0
WIS-UPPER MICH	33.9	31.5	30.0	28.8	27.6	27.5	28.3	28.0	27.2	26.8
MAPP	34.9	35.4	34.4	33.7	33.1	32.0	30.5	31.3	30.1	30.0
NPCC	30.0	31.4	30.8	30.2	31.5	30.2	29.2	27.8	26.9	25.4
NEW YORK	34.0	36.9	36.1	35.2	34.8	34.1	33.4	32.2	31.9	31.1
NEW ENGLAND	24.7	23.9	23.6	23.4	27.4	25.1	23.7	22.0	20.2	17.6
SERC	28.8	29.0	28.7	28.0	26.2	25.7	24.8	23.7	22.0	22.1
FLORIDA	23.2	23.9	24.1	23.1	21.1	19.7	15.9	11.0	6.6	7.3
SOUTHERN	30.8	32.0	33.6	34.4	32.4	32.7	33.9	33.8	33.1	32.2
TVA	37.8	36.6	35.4	34.6	32.6	30.7	29.2	30.4	28.9	29.7
VACAR	25.2	25.5	24.0	22.3	21.1	21.6	21.4	20.2	19.0	19.0
SPP	47.9	46.6	45.5	44.0	42.4	40.7	38.9	38.4	38.0	37.6
SOUTHEAST	49.9	49.0	48.2	46.6	46.0	44.3	41.6	39.6	39.4	39.1
WEST CENTRAL	46.0	43.9	42.7	40.9	38.6	37.3	36.3	36.3	35.6	35.8
NORTHERN	46.8	45.7	44.4	43.4	40.8	38.5	37.5	39.2	38.8	37.7
WSCC	35.5	36.2	35.0	34.6	33.4	32.7	31.3	30.4	29.9	30.0
NW POOL	28.2	28.0	26.0	24.8	23.7	22.5	20.9	19.6	18.8	21.6
ROCKY MT-AREA	33.9	33.6	31.8	30.1	28.0	25.9	23.8	21.6	25.7	26.6
ARIZ-N.MEX	46.8	49.6	47.2	47.3	47.7	47.3	45.6	44.2	42.7	42.2
CALIF-SO.NEV	37.1	38.1	39.2	38.5	38.9	37.8	37.2	36.5	36.6	36.2
TOTAL(U.S.)	34.4	34.7	33.9	32.9	31.8	30.9	29.8	29.0	28.0	27.5
NERC-CANADA										
MAPP	18.1	16.9	17.0	16.3	17.3	24.5	25.6	23.9	24.7	23.3
NPCC	27.9	26.0	24.4	25.2	22.2	22.0	21.7	20.6	19.5	19.2
NEW BRUNSWICK	28.7	25.2	22.4	20.0	17.6	26.5	24.6	22.7	21.0	18.9
NOVA SCOTIA	23.1	25.6	22.4	19.2	16.0	24.5	21.5	18.4	15.2	22.2
ONTARIO	35.4	33.9	33.9	33.9	32.6	32.8	32.8	31.4	30.1	29.1
QUEBEC	20.0	17.7	14.2	16.5	11.7	9.1	8.7	8.4	8.1	8.3
WSCC	28.5	27.0	24.5	24.3	23.2	22.5	20.2	20.0	17.9	17.5
TOTAL(CANADA)	27.3	25.5	23.8	24.3	22.0	22.3	21.7	20.7	19.7	19.3
NERC-MEXICO										
WSCC	51.2	45.0	43.8	48.2	43.1	39.6	37.7	44.5	41.3	37.8
TOTAL(MEXICO)	51.2	45.0	43.8	48.2	43.1	39.6	37.7	44.5	41.3	37.8
NERC-TOTAL	33.6	33.6	32.7	31.9	30.6	29.9	28.9	28.1	27.1	26.5

INSTALLED GENERATING CAPACITY

The installed generating capacity includes those generating units which are existing, presently under construction, in various stages of planning, plus equipment upgradings, less deratings, less equipment removals. In addition to utility-owned generating units, the total installed capacity includes non-utility generating capacity which is anticipated or planned to be available for purchase by utilities to serve utility customers.

Figure 8 shows the 1986 and 1995 projections of total installed generating capacity with a breakdown by fuel type for NERC-U.S., NERC-CANADA and NERC-MEXICO. Similarly, Table 10 shows the generating capacity percentage mix by fuel type for all NERC regions for the first and tenth years of the forecast.

The 1985 actual and 1986-1995 projections for installed generating capacity for the nine Regional Reliability Councils and their subregions are shown in Tables 11 (summer) and 14 (winter). These generating capacities correspond with the time of the projected seasonal peak demands for the regions and subregions shown in Tables 2 and 3. A further breakdown of the regional and subregional summer generating capacity totals of Table 11, by fuel type, is included in Appendix A.

Tables 12 and 13 show the summer generating capacities by fuel type in megawatts and in percent of total megawatts, respectively, for NERC-U.S., NERC-CANADA, NERC-MEXICO and NERC-TOTAL. Tables 15 and 16 show the winter generating capacities for these areas on the same basis.

In summary, these tables show that the NERC-TOTAL installed generating capacity will increase from 717,000 to 801,000 MW (summer) and from 737,000 to 816,000 MW (winter) over the 1986-1995 forecast period. For tabulations of the total planned resources, which include scheduled capacity purchases and sales in addition to installed generating capacity, refer to Tables 6 and 7.

Figure 8
INSTALLED GENERATING CAPACITY BY FUEL

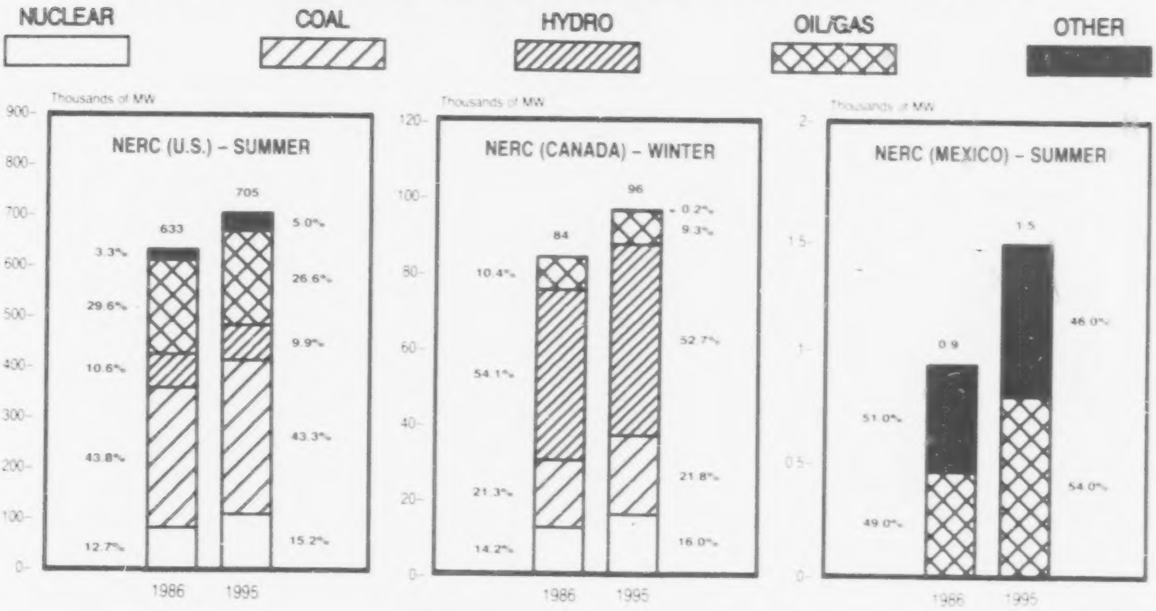


TABLE 10
INSTALLED GENERATING CAPACITY[a] BY FUEL (% TOTAL)

	1986					1995				
	Nuclear	Coal	Hydro[b]	Oil/Gas	Other	Nuclear	Coal	Hydro[b]	Oil/Gas	Other
ECAR	5.9	83.3	0.6	6.5	3.7	7.5	81.4	0.6	7.0	3.5
ERCOT	0.0	27.3	0.6	72.1	0.0	8.2	37.2	0.4	53.4	0.8
MAAC	22.0	26.8	2.1	45.8	3.3	24.8	26.9	1.9	42.0	4.4
MAIN	24.3	59.8	1.3	13.9	0.7	30.5	55.0	1.2	12.5	0.8
MAPP-U.S.	12.9	64.5	10.4	12.0	0.2	12.3	66.8	9.0	11.6	0.3
NPCC-U.S.	17.3	13.0	10.2	54.0	5.5	21.6	13.6	10.3	47.6	6.9
SERC	18.9	48.9	8.5	20.2	3.5	21.9	46.6	7.5	18.7	5.3
SPP	8.9	39.5	3.7	47.4	0.5	8.5	40.3	3.7	46.4	1.1
WSCC-U.S.	8.0	23.7	35.4	26.7	6.2	8.8	23.5	33.4	22.6	11.7
NERC-U.S.	**12.7**	**43.8**	**10.6**	**29.6**	**3.3**	**15.2**	**43.3**	**9.9**	**26.6**	**5.0**
MAPP-CAN.	0.0	29.5	66.3	4.2	0.0	0.0	27.8	63.9	8.3	0.0
NPCC-CAN.	20.0	19.1	50.5	10.4	0.0	22.7	17.8	50.3	8.9	0.3
WSCC-CAN.	0.0	25.6	61.4	13.0	0.0	0.0	33.0	56.0	11.0	0.0
NERC-CAN.	**14.2**	**21.3**	**54.1**	**10.4**	**0.0**	**16.0**	**21.8**	**52.7**	**9.3**	**0.2**
NERC-MEX.[c]	**0.0**	**0.0**	**0.0**	**49.0**	**51.0[d]**	**0.0**	**0.0**	**0.0**	**54.0**	**46.0[d]**
NERC-TOTAL	**12.8**	**41.1**	**15.7**	**27.4**	**3.0**	**15.3**	**40.6**	**15.0**	**24.6**	**4.5**

a) Summer capabilities, except winter capabilities for Canada

b) Conventional hydro. Adverse hydro except for a few systems with median or average hydro.

c) Same as WSCC-Mexico.

d) All geothermal capacity.

TABLE 11

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED INSTALLED GENERATING CAPACITY[a] - SUMMER - MW
(1986-1995 FORECAST)

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	92960	96452	97730	98760	100123	100098	101755	101801	102833	103016	103454
ERCOT	43829	43414	46172	49238	50411	51066	51485	53135	54605	56710	58767
MAAC	47157	47512	48579	48644	48698	48760	49424	50213	50276	50298	50946
MAIN	44568	45334	48515	48535	49799	49716	49832	49962	50083	50189	50222
CMNWLTH EDISON	17552	18672	20882	20882	21972	21972	21972	21972	21972	21972	21972
EAST MISSOURI	8207	8197	8197	8238	8238	8238	8238	8238	8238	8238	8238
S CENT ILLINOIS	9031	8899	9849	9849	9849	9849	9849	9849	9849	9849	9811
WIS-UPPER MICH	9778	9566	9587	9566	9740	9657	9773	9903	10024	10130	10201
MAPP	28685	28750	28979	29483	29518	29801	29785	29786	29683	29763	30205
NPCC	51319	52396	54949	55077	55136	55409	55540	55761	55686	56045	56098
NEW YORK	30983	30986	32888	33017	33076	33349	33415	33636	33663	34037	34147
NEW ENGLAND	20336	21410	22061	22060	22060	22060	22125	22125	22023	22008	21951
SERC	131437	133167	136959	140767	144275	144722	146711	147397	147603	149016	151113
FLORIDA	28004	28011	28561	28998	29784	29882	30031	30155	30069	30055	31460
SOUTHERN	32435	32659	34550	34505	37126	37203	37684	37731	37705	37755	37595
TVA	29847	29847	31017	32187	32187	32187	32187	32187	32187	33399	33399
VACAR	41151	42650	44831	45077	45178	45450	46809	47324	47642	47807	48659
SPP	62225	65201	65451	65519	65536	66082	66282	66414	67543	67931	69429
SOUTHEAST	25940	27945	27994	27991	28008	28269	28047	27675	27786	27424	28170
WEST CENTRAL	21342	22449	22670	22666	22666	22952	23250	23628	23869	24434	25146
NORTHERN	14943	14807	14787	14862	14862	14861	14985	15111	15888	16073	16113
WSCC[b]	119417	120964	124477	127493	128369	129929	130489	131336	132265	134253	135171
NW POOL	47671	46942	46476	47126	47187	47218	47257	47310	47381	47426	46899
ROCKY MT-AREA	9393	9517	9739	9868	9875	9914	10027	10027	10027	10837	10837
ARIZ-N.MEX	12223	13469	15114	15718	15985	16669	16985	17010	17061	17169	17239
CALIF-SO.NEV	50130	51688	53148	55317	55676	56701	56798	57567	58374	59398	60196
TOTAL(U.S.)	621597	633190	653811	663516	671865	675583	681303	685805	690577	697221	705305
NERC-CANADA											
MAPP	6379	6631	6781	6981	7081	7081	8073	8371	8491	8763	8763
NPCC	55682	57890	58814	59870	61298	61877	62250	63170	64722	65773	66564
NEW BRUNSWICK	3194	3194	3194	3194	3194	3194	3194	3194	3194	3194	3194
NOVA SCOTIA	1798	1798	1798	1951	1951	1951	2251	2251	2251	2251	2251
ONTARIO[c]	27524	29144	29999	30833	31714	31744	31774	32685	33596	34007	34166
QUEBEC	23166	23754	23823	23892	24439	24988	25031	25040	25681	26321	26953
WSCC	17529	17940	17940	17940	17940	18279	18537	18923	18923	19283	19283
TOTAL(CANADA)	79590	82461	83535	84791	86319	87237	88860	90464	92136	93819	94610
NERC-MEXICO											
WSCC	628	928	1028	1073	1218	1218	1218	1268	1463	1463	1463
TOTAL(MEXICO)	628	928	1028	1073	1218	1218	1218	1268	1463	1463	1463
NERC-TOTAL	701815	716579	738374	749380	759402	764038	771381	777537	784176	792503	801378

a) At the time of actual and projected summer peak demand.
b) Because of subregional peak demand diversities, the sum of the subregional capacities at the time of their respective peak demands may not equal the WSCC(U.S.) capacity total.
c) Includes 3,783 MW of mothballed capacity, some of which may be retired before 1994. Decisions as to when the retirements will occur have not been made.

TABLE 12

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED INSTALLED GENERATING CAPACITY BY FUEL TYPE - SUMMER - MW
(1986-1995 FORECAST)

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
COAL	271950	276939	281237	283576	286414	286960	291137	293805	296828	300248	305407
NUCLEAR	71342	80693	96071	101374	104934	104963	106018	106018	106018	107230	107230
HYDRO[a]	70331[d]	67185	67420	67869	68523	68786	68687	69048	69528	69893	69950
PUMPED STORAGE	14066	16059	16063	16239	16185	16372	16963	17453	17553	17563	17537
GEOTHERMAL	1480	2019	2114	2291	2552	2666	2716	2845	2845	2859	3099
OIL[b]	59821	56889	55822	55370	56123	56474	56339	56173	56556	56592	56763
GAS[b]	43564	42124	42520	42507	42308	42375	41793	41565	41649	42078	41847
DUAL(OIL/GAS)FUEL[b,c]	87248	88458	88344	87911	87800	88507	88621	88439	88373	88328	88817
OTHER	1795	2824	4220	6379	7026	8480	9029	10459	11227	12430	14655
TOTAL(U.S.)	621597	633190	653811	663516	671865	675583	681303	685805	690577	697221	705305
NERC-CANADA											
COAL	17219	17800	17800	17953	17953	18339	19277	19601	19601	20233	20233
NUCLEAR	9618	11029	11884	12765	13646	13646	13646	14527	15408	15408	15408
HYDRO[a]	44099	44994	45063	45137	45684	46233	46996	47365	48126	49147	49908
PUMPED STORAGE	0	0	0	0	0	0	0	0	0	0	0
GEOTHERMAL	0	0	0	0	0	0	0	0	0	0	0
OIL[b]	5667	5622	5622	5570	5570	5570	5567	5567	5567	5567	5567
GAS[b]	2087	2116	2266	2466	2566	2519	2414	2414	2414	2414	2414
DUAL(OIL/GAS)FUEL[b,c]	900	900	900	900	900	900	900	900	900	900	900
OTHER	0	0	0	0	0	30	60	90	120	150	180
TOTAL(CANADA)	79590	82461	83535	84791	86319	87237	88860	90464	92136	93819	94610
NERC-MEXICO											
COAL	0	0	0	0	0	0	0	0	0	0	0
NUCLEAR	0	0	0	0	0	0	0	0	0	0	0
HYDRO[a]	0	0	0	0	0	0	0	0	0	0	0
PUMPED STORAGE	0	0	0	0	0	0	0	0	0	0	0
GEOTHERMAL	173	473	573	573	573	573	573	623	673	673	673
OIL[b]	455	455	455	500	645	645	645	645	790	790	790
GAS[b]	0	0	0	0	0	0	0	0	0	0	0
DUAL(OIL/GAS)FUEL[b,c]	0	0	0	0	0	0	0	0	0	0	0
OTHER	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	628	928	1028	1073	1218	1218	1218	1268	1463	1463	1463
NERC-TOTAL											
COAL	289169	294739	299037	301529	304367	305299	310414	313406	316429	320481	325640
NUCLEAR	80960	91722	107955	114139	118580	118609	119664	120545	121426	122638	122638
HYDRO[a]	114430[d]	112179	112483	113006	114207	115019	115683	116413	117654	119040	119858
PUMPED STORAGE	14066	16059	16063	16239	16185	16372	16963	17453	17553	17563	17537
GEOTHERMAL	1653	2492	2687	2864	3125	3239	3289	3468	3518	3532	3772
OIL[b]	65943	62966	61899	61440	62338	62689	62551	62385	62913	62949	63120
GAS[b]	45651	44240	44786	44973	44874	44894	44207	43979	44063	44492	44261
DUAL(OIL/GAS)FUEL[b,c]	88148	89358	89244	88811	88700	89407	89521	89339	89273	89228	89717
OTHER	1795	2824	4220	6379	7026	8510	9089	10549	11347	12580	14835
NERC-TOTAL	701815	716579	738374	749380	759402	764038	771381	777537	784176	792503	801378

a) Conventional hydro. Adverse hydro conditions are generally assumed for forecast years by most systems.
b) Includes steam, combustion turbine(and diesel), and combined cycle units.
c) Capable of burning oil or gas equally.
d) Data for actual year can be greater than for forecast years if median or average hydro conditions occurred.

TABLE 13

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED INSTALLED GENERATING CAPACITY BY FUEL TYPE - SUMMER - % TOTAL
(1986-1995 FORECAST)

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
COAL	43.8	43.7	43.0	42.7	42.6	42.5	42.7	42.8	43.0	43.1	43.3
NUCLEAR	11.5	12.7	14.7	15.3	15.6	15.5	15.6	15.5	15.4	15.4	15.2
HYDRO[a]	11.3[d]	10.6	10.3	10.2	10.2	10.2	10.1	10.1	10.1	10.0	9.9
PUMPED STORAGE	2.3	2.5	2.5	2.4	2.4	2.4	2.5	2.5	2.5	2.5	2.5
GEOTHERMAL	.2	.3	.3	.3	.4	.4	.4	.4	.4	.4	.4
OIL[b]	9.6	9.0	8.5	8.3	8.4	8.4	8.3	8.2	8.2	8.1	8.0
GAS[b]	7.0	6.7	6.5	6.4	6.3	6.3	6.1	6.1	6.0	6.0	5.9
DUAL(OIL/GAS)FUEL[b,c]	14.0	14.0	13.5	13.2	13.1	13.1	13.0	12.9	12.8	12.7	12.6
OTHER	.3	.4	.6	1.0	1.0	1.3	1.3	1.5	1.6	1.8	2.1
TOTAL(U.S.)[e]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
NERC-CANADA											
COAL	21.6	21.6	21.3	21.2	20.8	21.0	21.7	21.7	21.3	21.6	21.4
NUCLEAR	12.1	13.4	14.2	15.1	15.8	15.6	15.4	16.1	16.7	16.4	16.3
HYDRO[a]	55.4	54.6	53.9	53.2	52.9	53.0	52.9	52.4	52.2	52.4	52.8
PUMPED STORAGE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
GEOTHERMAL	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
OIL[b]	7.1	6.8	6.7	6.6	6.5	6.4	6.3	6.2	6.0	5.9	5.9
GAS[b]	2.6	2.6	2.7	2.9	3.0	2.9	2.7	2.7	2.6	2.6	2.6
DUAL(OIL/GAS)FUEL[b,c]	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0
OTHER	.0	.0	.0	.0	.0	.0	.1	.1	.1	.2	.2
TOTAL(CANADA)[e]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
NERC-MEXICO											
COAL	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NUCLEAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
HYDRO[a]	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
PUMPED STORAGE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
GEOTHERMAL	27.5	51.0	55.7	53.4	47.0	47.0	47.0	49.1	46.0	46.0	46.0
OIL[b]	72.5	49.0	44.3	46.6	53.0	53.0	53.0	50.9	54.0	54.0	54.0
GAS[b]	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
DUAL(OIL/GAS)FUEL[b,c]	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
OTHER	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL(MEXICO)[e]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
NERC-TOTAL											
COAL	41.2	41.1	40.5	40.2	40.1	40.0	40.2	40.3	40.4	40.4	40.6
NUCLEAR	11.5	12.8	14.6	15.2	15.6	15.5	15.5	15.5	15.5	15.5	15.3
HYDRO[a]	16.3[d]	15.7	15.2	15.1	15.0	15.1	15.0	15.0	15.0	15.0	15.0
PUMPED STORAGE	2.0	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2
GEOTHERMAL	.2	.3	.4	.4	.4	.4	.4	.4	.4	.4	.5
OIL[b]	9.4	8.8	8.4	8.2	8.2	8.2	8.1	8.0	8.0	7.9	7.9
GAS[b]	6.5	6.2	6.1	6.0	5.9	5.9	5.7	5.7	5.6	5.6	5.5
DUAL(OIL/GAS)FUEL[b,c]	12.6	12.5	12.1	11.9	11.7	11.7	11.6	11.5	11.4	11.3	11.2
OTHER	.3	.4	.6	.9	.9	1.1	1.2	1.4	1.4	1.6	1.9
NERC-TOTAL[e]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

a) Conventional hydro. Adverse hydro conditions are generally assumed for forecast years by most systems.
b) Includes steam, combustion turbine(and diesel), and combined cycle units.
c) Capable of burning oil or gas equally.
d) Data for actual year can be greater than for forecast years if median or average hydro conditions occurred.
e) Totals may not add due to rounding.

TABLE 14

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED INSTALLED GENERATING CAPACITY[a] - WINTER - MW
(1986-1995 FORECAST)

	ACTUAL 1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96
NERC-U.S.											
ECAR	95750	99240	99814	101597	101615	101450	103213	103759	104320	104602	105264
ERCOT	44036	44971	48943	49268	50439	51628	52401	54150	56153	58554	59439
MAAC	49715	49911	50978	51043	51055	51117	51670	52631	52694	52707	53255
MAIN	46319	47182	49449	50606	50674	50687	50803	51051	51140	51166	51199
CMNWLTH EDISON	19027	19161	21401	22521	22521	22521	22521	22521	22521	22521	22521
EAST MISSOURI	8267	8267	8267	8308	8308	8308	8308	8308	8308	8308	8308
S CENT ILLINOIS	9069	10019	10019	10019	10019	10019	10019	10019	10019	10019	9981
WIS-UPPER MICH	9956	9735	9762	9758	9826	9839	9955	10203	10292	10318	10389
MAPP	29434	29629	30402	30410	30687	30738	30806	30686	30766	30766	31208
NPCC	52984	54586	56643	56769	56832	57193	57320	57377	57382	57685	57517
NEW YORK	32013	31860	33920	34041	34104	34380	34507	34667	34694	35068	35178
NEW ENGLAND	20971	22726	22723	22728	22728	22813	22813	22710	22688	22617	22339
SERC	134754	137828	141260	144360	146127	146379	148676	149451	150805	150848	154304
FLORIDA	29007	29033	30027	30637	30839	30955	31135	31175	31161	31155	32636
SOUTHERN	32560	33318	34419	35515	36916	36777	37660	37685	37685	37574	37372
TVA	30006	31176	31176	32346	32346	32346	32346	32346	33558	33558	34770
VACAR	43181	44301	45638	45862	46026	46301	47535	48245	48401	48561	49526
SPP	63956	65685	65744	65833	65798	66178	66207	66822	67779	69033	70312
SOUTHEAST	26685	28048	27994	28008	28008	28070	27675	27786	27534	28070	28585
WEST CENTRAL	22268	22629	22742	22742	22742	23026	23326	23704	24156	24689	25413
NORTHERN	15003	15008	15008	15083	15048	15082	15206	15332	16089	16274	16314
WSCC[b]	119527	123249	127396	128258	129725	130626	131552	132270	133495	135365	136128
NW POOL	48468	47051	47269	47265	47281	47407	47446	47461	47531	47625	47912
ROCKY MT-AREA	9613	9734	9932	9956	9992	10090	10092	10092	10092	10902	10902
ARIZ-N.MEX	12495	14361	15623	15524	15917	16629	16947	17055	17163	17233	17235
CALIF-SO.NEV	48951	51237	53442	54991	55286	56355	56518	57268	57949	59177	60079
TOTAL(U.S.)	636475	652281	670629	678144	682952	685996	692648	698197	704534	710726	718626
NERC-CANADA											
MAPP	6589	6595	6745	6945	7045	7285	8157	8455	8455	8727	8727
NPCC	56640	59327	59502	60440	62390	62463	63683	65235	66105	67016	68039
NEW BRUNSWICK	3194	3194	3194	3194	3194	3194	3194	3194	3194	3194	3194
NOVA SCOTIA	1798	1798	1951	1951	1951	1951	2251	2251	2251	2251	2551
ONTARIO[c]	28052	30376	30329	31210	32121	32151	33062	33973	34203	34482	34573
QUEBEC	23596	23959	24028	24085	25124	25167	25176	25817	26457	27089	27721
WSCC	17426	17680	17680	17680	18011	18265	18651	18651	19011	19011	19371
TOTAL(CANADA)	80655	83602	83927	85065	87446	88013	90491	92341	93571	94754	96137
NERC-MEXICO											
WSCC	828	1028	1028	1073	1218	1218	1218	1268	1463	1463	1463
TOTAL(MEXICO)	828	1028	1028	1073	1218	1218	1218	1268	1463	1463	1463
NERC-TOTAL	717958	736911	755584	764282	771616	775227	784357	791806	799568	806943	816226

a) At the time of actual and projected winter peak demand.

b) Because of subregional peak demand diversities, the sum of the subregional capacities at the time of their respective peak demands may not equal the WSCC(U.S.) capacity total.

c) Includes 3,783 MW of mothballed capacity, some of which may be retired before 1994. Decisions as to when the retirements will occur have not been made.

TABLE 15

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED INSTALLED GENERATING CAPACITY BY FUEL TYPE - WINTER - MW
(1986-1995 FORECAST)

	ACTUAL 1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96
NERC-U.S.											
COAL	274674	281386	285503	287693	288845	289902	294695	297116	300436	304204	307848
NUCLEAR	74518	87833	100778	104460	105768	105768	106823	106823	108035	108035	109247
HYDRO[a]	69777[d]	66967	67315	67502	67994	68344	68495	68989	69352	69711	69863
PUMPED STORAGE	16246	16208	16208	16208	16208	16358	17008	17618	17618	17618	17582
GEOTHERMAL	1846	2025	2252	2447	2623	2732	2847	2861	2861	3065	3255
OIL[b]	65029	61298	60450	60542	61312	61688	61455	61572	61834	61614	61441
GAS[b]	42827	41901	42031	41863	41687	41478	40551	41292	41758	42900	42691
DUAL(OIL/GAS)FUEL[b,c]	89750	91085	90729	90645	90518	91077	90730	91218	91121	90985	91943
OTHER	1808	3578	5363	6784	7997	8649	10044	10708	11519	12594	14756
TOTAL(U.S.)	636475	652281	670629	678144	682952	685996	692648	698197	704534	710726	718626
NERC-CANADA											
COAL	17444	17810	17963	17963	18349	18715	19673	19611	19971	20243	20903
NUCLEAR	9668	11884	11884	12765	13646	13646	14527	15408	15408	15408	15408
HYDRO[a]	44815	45188	45262	45319	46358	46641	47250	48251	49091	49972	50665
PUMPED STORAGE	0	0	0	0	0	0	0	0	0	0	0
GEOTHERMAL	0	0	0	0	0	0	0	0	0	0	0
OIL[b]	5357	5461	5409	5409	5409	5406	5406	5406	5406	5406	5406
GAS[b]	2359	2359	2509	2709	2754	2645	2645	2645	2645	2645	2645
DUAL(OIL/GAS)FUEL[b,c]	900	900	900	900	900	900	900	900	900	900	900
OTHER	112	0	0	0	30	60	90	120	150	180	210
TOTAL(CANADA)	80655	83602	83927	85065	87446	88013	90491	92341	93571	94754	96137
NERC-MEXICO											
COAL	0	0	0	0	0	0	0	0	0	0	0
NUCLEAR	0	0	0	0	0	0	0	0	0	0	0
HYDRO[a]	0	0	0	0	0	0	0	0	0	0	0
PUMPED STORAGE	0	0	0	0	0	0	0	0	0	0	0
GEOTHERMAL	373	573	573	573	573	573	573	623	673	673	673
OIL[b]	455	455	455	500	645	645	645	645	790	790	790
GAS[b]	0	0	0	0	0	0	0	0	0	0	0
DUAL(OIL/GAS)FUEL[b,c]	0	0	0	0	0	0	0	0	0	0	0
OTHER	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	828	1028	1028	1073	1218	1218	1218	1268	1463	1463	1463
NERC-TOTAL											
COAL	292118	299196	303466	305656	307194	308617	314368	316727	320407	324447	328751
NUCLEAR	84186	99717	112662	117225	119414	119414	121350	122231	123443	123443	124655
HYDRO[a]	114592[d]	112155	112577	112821	114352	114985	115745	117240	118443	119683	120528
PUMPED STORAGE	16246	16208	16208	16208	16208	16358	17008	17618	17618	17618	17582
GEOTHERMAL	2219	2598	2825	3020	3196	3305	3420	3484	3534	3738	3928
OIL[b]	70841	67214	66314	66451	67366	67739	67506	67623	68030	67810	67637
GAS[b]	45186	44260	44540	44572	44441	44123	43196	43937	44403	45545	45336
DUAL(OIL/GAS)FUEL[b,c]	90650	91985	91629	91545	91418	91977	91630	92118	92021	91885	92843
OTHER	1920	3578	5363	6784	8027	8709	10134	10828	11669	12774	14966
NERC-TOTAL	717958	736911	755584	764282	771616	775227	784357	791806	799568	806943	816226

a) Conventional hydro. Adverse hydro conditions are generally assumed for forecast years by most systems.
b) Includes steam, combustion turbine(and diesel), and combined cycle units.
c) Capable of burning oil or gas equally.
d) Data for actual year can be greater than for forecast years if median or average hydro conditions occurred.

TABLE 16

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED INSTALLED GENERATING CAPACITY BY FUEL TYPE - WINTER - % TOTAL
(1986-1995 FORECAST)

	ACTUAL 1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96
NERC-U.S.											
COAL	43.2	43.1	42.6	42.4	42.3	42.3	42.5	42.6	42.6	42.8	42.8
NUCLEAR	11.7	13.5	15.0	15.4	15.5	15.4	15.4	15.3	15.3	15.2	15.2
HYDRO[a]	11.0[d]	10.3	10.0	10.0	10.0	10.0	9.9	9.9	9.8	9.8	9.7
PUMPED STORAGE	2.6	2.5	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5	2.4
GEOTHERMAL	.3	.3	.3	.4	.4	.4	.4	.4	.4	.4	.5
OIL[b]	10.2	9.4	9.0	8.9	9.0	9.0	8.9	8.8	8.8	8.7	8.5
GAS[b]	6.7	6.4	6.3	6.2	6.1	6.0	5.9	5.9	5.9	6.0	5.9
DUAL(OIL/GAS)FUEL[b,c]	14.1	14.0	13.5	13.4	13.3	13.3	13.1	13.1	12.9	12.8	12.8
OTHER	.3	.5	.8	1.0	1.2	1.3	1.5	1.5	1.6	1.8	2.1
TOTAL(U.S.)[e]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
NERC-CANADA											
COAL	21.6	21.3	21.4	21.1	21.0	21.3	21.7	21.2	21.3	21.4	21.7
NUCLEAR	12.0	14.2	14.2	15.0	15.6	15.5	16.1	16.7	16.5	16.3	16.0
HYDRO[a]	55.6	54.1	53.9	53.3	53.0	53.0	52.2	52.3	52.5	52.7	52.7
PUMPED STORAGE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
GEOTHERMAL	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
OIL[b]	6.6	6.5	6.4	6.4	6.2	6.1	6.0	5.9	5.8	5.7	5.6
GAS[b]	2.9	2.8	3.0	3.2	3.1	3.0	2.9	2.9	2.8	2.8	2.8
DUAL(OIL/GAS)FUEL[b,c]	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.0	.9	.9
OTHER	.1	.0	.0	.0	.0	.1	.1	.1	.2	.2	.2
TOTAL(CANADA)[e]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
NERC-MEXICO											
COAL	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NUCLEAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
HYDRO[a]	.0	.0	.0	.0	.0	.0	.0	0	.0	.0	.0
PUMPED STORAGE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
GEOTHERMAL	45.0	55.7	55.7	53.4	47.0	47.0	47.0	49.1	46.0	46.0	46.0
OIL[b]	55.0	44.3	44.3	46.6	53.0	53.0	53.0	50.9	54.0	54.0	54.0
GAS[b]	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
DUAL(OIL/GAS)FUEL[b,c]	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
OTHER	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL(MEXICO)[e]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
NERC-TOTAL											
COAL	40.7	40.6	40.2	40.0	39.8	39.8	40.1	40.0	40.1	40.2	40.3
NUCLEAR	11.7	13.5	14.9	15.3	15.5	15.4	15.5	15.4	15.4	15.3	15.3
HYDRO[a]	16.0[d]	15.2	14.9	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
PUMPED STORAGE	2.3	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2
GEOTHERMAL	.3	.4	.4	.4	.4	.4	.4	.4	.4	.5	.5
OIL[b]	9.9	9.1	8.8	8.7	8.7	8.7	8.6	8.5	8.5	8.4	8.3
GAS[b]	6.3	6.0	5.9	5.8	5.8	5.7	5.5	5.5	5.6	5.6	5.6
DUAL(OIL/GAS)FUEL[b,c]	12.6	12.5	12.1	12.0	11.8	11.9	11.7	11.6	11.5	11.4	11.4
OTHER	.3	.5	.7	.9	1.0	1.1	1.3	1.4	1.5	1.6	1.8
NERC-TOTAL[e]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

a) Conventional hydro. Adverse hydro conditions are generally assumed for forecast years by most systems.
b) Includes steam, combustion turbine(and diesel), and combined cycle units.
c) Capable of burning oil or gas equally.
d) Data for actual year can be greater than for forecast years if median or average hydro conditions occurred.
e) Totals may not add due to rounding.

A region's NEL may be supplied by a combination of internal generation plus imports (or purchases) from others. Figure 9 shows that the electric energy produced (generated) from primary energy sources in Region A may be used to supply internal load directly or it may also supply energy for pumping of pumped storage units (or charging of other energy storage type generating units). The pumped storage units, in turn, can then generate electric energy as scheduled. Electric energy production less pumped storage load (input) plus pumped storage generation (output) equals Region A's internal generation for load. If Region A's internal generation is not adequate, then Region A will generally import (or purchase) additional energy from others. Region A may also export (or sell) energy to others. Table 18 shows the 1985 actual and 1986-1995 projected electric energy production, internal generation, imports less exports, and NEL for NERC-U.S., NERC-CANADA, NERC-MEXICO, and NERC-TOTAL.

Figure 10 illustrates the projected growth in electric energy production by fuel type for NERC-U.S., NERC-CANADA, and NERC-MEXICO from 1986 to 1995. The year-by-year percentages for these three areas and for NERC-TOTAL are shown in Table 19. Table 17 shows similar electric energy production by percentage fuel mix for all NERC regions. The regional electric energy production figures to which the Table 17 percentages apply are shown in Table 20. Further details of regional and subregional electric energy production by fuel type are included in Appendix B.

The total internal generation for load figures in Table 18 are shown on a regional basis in Table 21. Similarly, the imports (less exports) of Table 18 are shown on a regional basis in Table 22. The annual NEL totals of Table 18 were previously described in Table 5.

The projected electric energy production, internal generation, imports less exports and NEL as described above assume that the projected plans for installed generating capacity as tabulated in the previous section will be realized on schedule. Based on these projections, the industry will require 24% more NEL in 1995 than in 1986.

Figure 9
REGIONAL ELECTRIC ENERGY PRODUCTION, GENERATION, AND NET ENERGY FOR LOAD

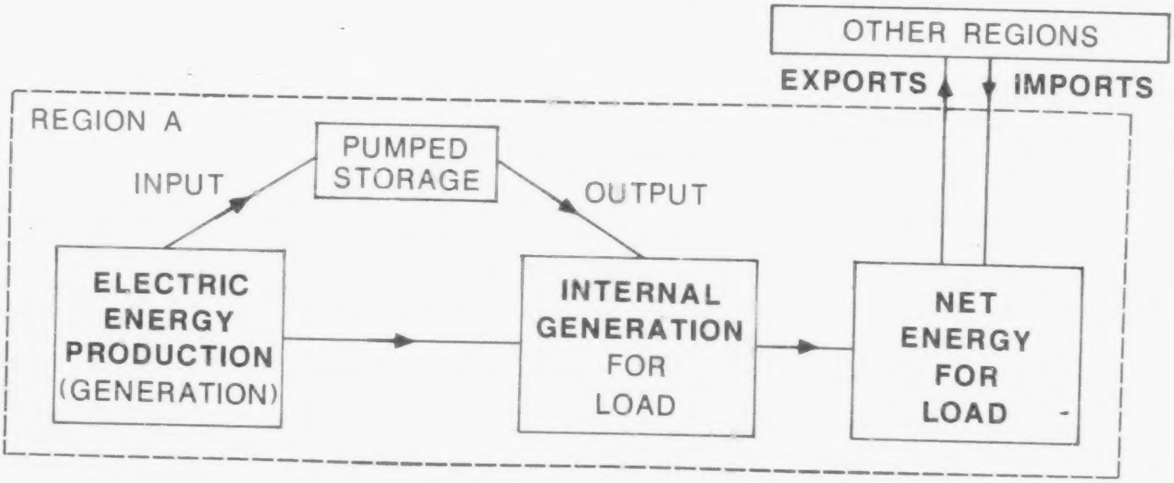


Figure 10
ELECTRIC ENERGY PRODUCTION BY FUEL

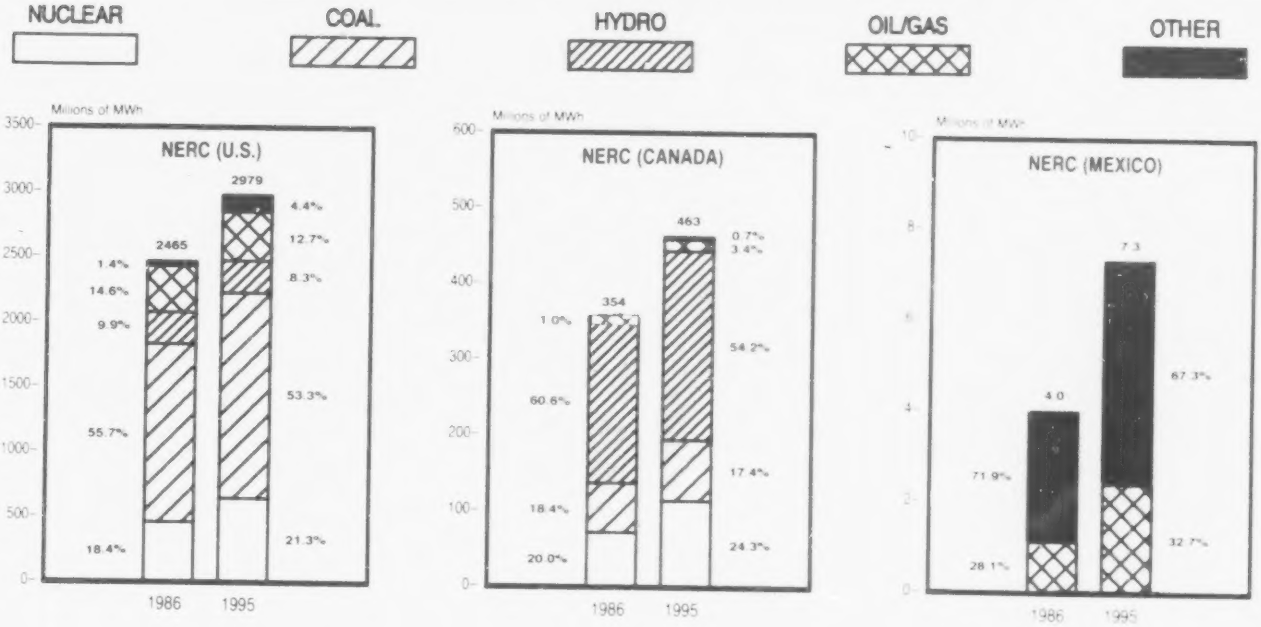


TABLE 17
ELECTRIC ENERGY PRODUCTION BY FUEL (% TOTAL)

	1986					1995				
	Nuclear	Coal	Hydro[a]	Oil/Gas	Other	Nuclear	Coal	Hydro[a]	Oil/Gas	Other
ECAR	5.4	93.9	0.6	0.1	0.0	9.3	90.0	0.5	0.2	0.0
ERCOT	0.0	43.3	0.2	56.5	0.0	11.5	53.2	0.1	34.9	0.3
MAAC	33.8	53.8	2.1	9.8	0.5	34.1	48.9	1.8	12.4	2.8
MAIN	34.6	63.2	1.3	0.6	0.3	41.6	55.7	1.2	1.0	0.5
MAPP-U.S.	21.8	67.4	10.4	0.3	0.1	20.6	68.2	10.1	0.5	0.6
NPCC-U.S.	26.7	19.0	15.2	37.5	1.6	32.0	18.9	12.3	28.6	8.2
SERC	27.6	60.3	6.3	5.1	0.7	32.2	53.6	5.6	6.5	2.1
SPP	13.3	54.5	2.6	29.2	0.4	12.8	53.3	2.2	31.1	0.6
WSCC-U.S.	12.7	33.0	32.7	16.0	5.6	11.6	34.5	26.9	12.0	15.0
NERC-U.S.	**18.4**	**55.7**	**9.9**	**14.6**	**1.4**	**21.3**	**53.3**	**8.3**	**12.7**	**4.4**
MAPP-CAN.	0.0	23.4	75.9	0.7	0.0	0.0	24.9	73.7	1.4	0.0
NPCC-CAN.	29.0	11.6	58.8	0.6	0.0	34.8	9.2	53.2	2.4	0.4
WSCC-CAN.	0.0	38.1	59.3	2.6	0.0	0.0	41.6	48.7	7.5	2.2
NERC-CAN.	**20.0**	**18.4**	**60.6**	**1.0**	**0.0**	**24.3**	**17.4**	**54.2**	**3.4**	**0.7**
NERC-MEX.[b]	**0.0**	**0.0**	**0.0**	**28.1**	**71.9[c]**	**0.0**	**0.0**	**0.0**	**32.7**	**67.3[c]**
NERC-TOTAL	**18.6**	**50.9**	**16.3**	**12.9**	**1.3**	**21.7**	**48.4**	**14.4**	**11.5**	**4.0**

a)Conventional hydro. Adverse hydro except for a few systems with median or average hydro.
b)Same as WSCC-Mexico.
c)Geothermal electric energy production.

TABLE 18

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED TOTAL ELECTRIC ENERGY PRODUCTION, INTERNAL GENERATION,
AND NET ENERGY FOR LOAD BY FUEL TYPE - Millions kWh

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
COAL	1384391	1372136	1369111	1390002	1415446	1429161	1463678	1495145	1518686	1550077	1587942
NUCLEAR	377042[b]	453616	525656	576179	599911	619226	621494	631532	623488	633080	636087
HYDRO[a]	277981[b]	244658	244525	243274	243209	244620	246577	247702	247776	249249	247816
OIL	89055	85079	75252	73631	78173	78102	82944	86991	96232	110875	124561
GAS	284709	273986	248922	226298	226312	235254	243715	241975	255209	257545	253364
GEOTHERMAL	11061	12997	13550	14698	16241	16816	17488	17945	18184	-18422	19925
OTHER	14197	22396	36680	51525	58360	69395	72368	82722	93343	102552	109693
ELECTRIC PRODUCTION[c]	2438436	2464868	2513696	2575607	2637652	2692574	2748264	2804412	2852918	2920800	2979388
PUMP.STOR.LOAD(-)	16242	16732	17185	17808	17389	18288	19065	19140	20045	20295	21496
PUMP.STOR.GEN.(+)	13836	15549	15793	16317	16030	16618	17156	17202	17814	18002	18777
INTERNAL GENERATION[d]	2436030	2463685	2512304	2574116	2636293	2690904	2746355	2802474	2850687	2918507	2976669
IMPORTS-EXPORTS	63196	61450	73924	80473	82619	87181	96369	106206	122295	121059	126531
NET ENERGY FOR LOAD[e]	2499226	2525135	2586228	2654589	2718912	2778085	2842724	2908680	2972962	3039566	3103200
NERC-CANADA											
COAL	73664	65057	63157	61312	59303	64143	68396	69754	72786	74942	80452
NUCLEAR	57585[b]	70741	79863	89075	97071	98584	101562	108486	112378	113357	112575
HYDRO[a]	218515[b]	214777	221921	226897	235329	242372	251677	250542	248710	250693	250723
OIL	2644	1602	1615	1992	2603	4599	7316	6567	6954	7381	7780
GAS	1392	2132	3219	4178	4396	4002	4704	5828	7083	7566	7824
GEOTHERMAL	0	0	0	0	0	0	0	0	0	0	0
OTHER	532	50	50	77	107	176	266	995	1304	2394	3465
ELECTRIC PRODUCTION[c]	354332	354359	369825	383531	398809	413876	433921	442172	449215	456333	462819
PUMP.STOR.LOAD(-)	92	0	0	0	0	0	0	0	0	0	0
PUMP.STOR.GEN.(+)	0	0	0	0	0	0	0	0	0	0	0
INTERNAL GENERATION[d]	354240	354359	369825	383531	398809	413876	433921	442172	449215	456333	462819
IMPORTS-EXPORTS	-9003	-4042	-4315	-5612	-6384	-9891	-17579	-14174	-10423	-6033	-772
NET ENERGY FOR LOAD[e]	345237	350317	365510	377719	392425	403985	416342	427998	438792	450300	462047
NERC-MEXICO											
COAL	0	0	0	0	0	0	0	0	0	0	0
NUCLEAR	0	0	0	0	0	0	0	0	0	0	0
HYDRO[a]	0	0	0	0	0	0	0	0	0	0	0
OIL	1302	1115	910	1150	1396	1633	1881	1899	1848	2050	2394
GAS	0	0	0	0	0	0	0	0	0	0	0
GEOTHERMAL	1352	2854	4059	4182	4182	4182	4182	4422	4802	4922	4924
OTHER	0	0	0	0	0	0	0	0	0	0	0
ELECTRIC PRODUCTION[c]	2654	3969	4969	5332	5578	5815	6063	6321	6650	6972	7318
PUMP.STOR.LOAD(-)	0	0	0	0	0	0	0	0	0	0	0
PUMP.STOR.GEN.(+)	0	0	0	0	0	0	0	0	0	0	0
INTERNAL GENERATION[d]	2654	3969	4969	5332	5578	5815	6063	6321	6650	6972	7318
IMPORTS-EXPORTS	-42	-999	-1695	-1695	-1695	-1695	-1695	-1695	-1695	-1695	-1695
NET ENERGY FOR LOAD[e]	2612	2970	3274	3637	3883	4120	4368	4626	4955	5277	5623

TABLE 18 cont.

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED TOTAL ELECTRIC ENERGY PRODUCTION, INTERNAL GENERATION, AND NET ENERGY FOR LOAD BY FUEL TYPE - Millions kWh

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-TOTAL											
COAL	1458055	1437193	1432268	1451314	1474749	1493304	1532074	1564899	1591472	1625019	1668394
NUCLEAR	434627	524357	605519	665254	696982	717810	723056	740418	735866	746437	748662
HYDRO[a]	496496[b]	459435	466446	470171	478538	486992	498254	498244	496486	498942	498539
OIL	93001	87796	77777	76773	82172	84334	92141	95457	105034	120306	134735
GAS	286101	276118	252141	230476	230708	239256	248419	247803	262292	265111	261188
GEOTHERMAL	12413	15851	17609	18880	20423	20998	21670	22367	22986	23344	24849
OTHER	14729	22446	36730	51602	58467	69571	72634	83717	94647	104946	113158
ELECTRIC PRODUCTION[c]	2795422	2823196	2888490	2964470	3042039	3112265	3188248	3252905	3309783	3384105	3449525
PUMP.STOR.LOAD(-)	16334	16732	17185	17808	17389	18288	19065	19140	20045	20295	21496
PUMP.STOR.GEN.(+)	13836	15549	15793	16317	16030	16618	17156	17202	17814	18002	18777
INTERNAL GENERATION[d]	2792924	2822013	2887098	2962979	3040680	3110595	3186339	3250967	3306552	3381812	3446806
IMPORTS-EXPORTS	54151	56409	67914	72966	74540	75595	77095	90337	110177	113331	124064
	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------
NET ENERGY FOR LOAD[e]	2847075	2878422	2955012	3035945	3115220	3186190	3263434	3341304	3416729	3495143	3570870

a) Conventional hydro. Adverse hydro conditions are generally assumed for forecast years by most systems.

b) Data for actual year can be greater than for forecast years if median or average hydro conditions occurred.

c) Total electric energy production by primary energy sources. Includes pumped storage load, but excludes pumped storage generation.

d) Total electric energy generated internally to serve customers' load. Includes pumped storage generation, but excludes pumped storage load.

e) Total electric energy required to serve customers' load. Includes internal generation plus imports less exports. Same as Table 5.

TABLE 19

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED ELECTRIC ENERGY PRODUCTION[a] BY FUEL TYPE - % TOTAL
(1986-1995 FORECAST)

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
COAL	56.8	55.7	54.5	54.0	53.7	53.1	53.3	53.3	53.2	53.1	53.3
NUCLEAR	15.5	18.4	20.9	22.4	22.7	23.0	22.6	22.5	21.9	21.7	21.3
HYDRO[b]	11.4[c]	9.9	9.7	9.4	9.2	9.1	9.0	8.8	8.7	8.5	8.3
OIL	3.7	3.5	3.0	2.9	3.0	2.9	3.0	3.1	3.4	3.8	4.2
GAS	11.7	11.1	9.9	8.8	8.6	8.7	8.9	8.6	8.9	8.8	8.5
GEOTHERMAL	.5	.5	.5	.6	.6	.6	.6	.6	.6	.6	.7
OTHER	.6	.9	1.5	2.0	2.2	2.6	2.6	2.9	3.3	3.5	3.7
ELECTRIC PRODUCTION[d]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
NERC-CANADA											
COAL	20.8	18.4	17.1	16.0	14.9	15.5	15.8	15.8	16.2	16.4	17.4
NUCLEAR	16.3	20.0	21.6	23.2	24.3	23.8	23.4	24.5	25.0	24.8	24.3
HYDRO[b]	61.7[c]	60.6	60.0	59.2	59.0	58.6	58.0	56.7	55.4	54.9	54.2
OIL	.7	.5	.4	.5	.7	1.1	1.7	1.5	1.5	1.6	1.7
GAS	.4	.6	.9	1.1	1.1	1.0	1.1	1.3	1.6	1.7	1.7
GEOTHERMAL	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
OTHER	.2	.0	.0	.0	.0	.0	.1	.2	.3	.5	.7
ELECTRIC PRODUCTION[d]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
NERC-MEXICO											
COAL	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NUCLEAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
HYDRO[b]	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
OIL	49.1	28.1	18.3	21.6	25.0	28.1	31.0	30.0	27.8	29.4	32.7
GAS	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
GEOTHERMAL	50.9	71.9	81.7	78.4	75.0	71.9	69.0	70.0	72.2	70.6	67.3
OTHER	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ELECTRIC PRODUCTION[d]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
NERC-TOTAL											
COAL	52.2	50.9	49.6	49.0	48.5	48.0	48.1	48.1	48.1	48.0	48.4
NUCLEAR	15.5	18.6	21.0	22.4	22.9	23.1	22.7	22.8	22.2	22.1	21.7
HYDRO[b]	17.8[c]	16.3	16.1	15.9	15.7	15.6	15.6	15.3	15.0	14.7	14.5
OIL	3.3	3.1	2.7	2.6	2.7	2.7	2.9	2.9	3.2	3.6	3.9
GAS	10.2	9.8	8.7	7.8	7.6	7.7	7.8	7.6	7.9	7.8	7.6
GEOTHERMAL	.4	.6	.6	.6	.7	.7	.7	.7	.7	.7	.7
OTHER	.5	.8	1.3	1.7	1.9	2.2	2.3	2.6	2.9	3.1	3.3
ELECTRIC PRODUCTION[d]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

a) Total electric energy production by primary energy sources. Includes pumped storage load, but excludes pumped storage generation.
b) Conventional hydro. Adverse hydro conditions are generally assumed for forecast years by most systems.
c) Data for actual year can be greater than for forecast years if median or average hydro conditions occurred.
d) Totals may not add due to rounding.

TABLE 20

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED ELECTRIC ENERGY PRODUCTION[a] - Millions kWh
(1986-1995 FORECAST)

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	417586	414250	417450	432850	439850	445750	448450	454850	459250	467250	475350
ERCOT	174828	174307	179574	184406	190845	199906	208889	215394	225420	235604	243480
MAAC	169477	175607	176664	181927	185591	189708	194371	198513	203104	207523	210752
MAIN[b]	168991	175292	181352	184410	187933	191378	195172	197018	199159	202413	205028
CMNWLTH EDISON	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
EAST MISSOURI	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
S CENT ILLINOIS	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
WIS-UPPER MICH	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
MAPP	107079	115161	118062	118533	120289	121304	120482	123595	125126	125505	128081
NPCC	201650	203467	209755	212764	214634	217160	215751	219271	224117	230858	238706
NEW YORK	119198	114069	117750	117472	117194	120092	122100	123056	124983	127050	130101
NEW ENGLAND	82452	89398	92005	95292	97440	97068	93651	96215	99134	103808	108605
SERC	501493	518795	530167	541286	558827	570651	594275	605527	608057	615912	629292
FLORIDA	90502	89895	93919	98869	101533	103802	107711	110987	113826	116839	123589
SOUTHERN	136838	145727	146872	147902	149581	151930	164294	164284	158372	156849	156410
TVA	104330	106972	108814	112879	120038	122260	125494	128667	130071	131997	134082
VACAR	169823	176201	180562	181636	187675	192659	196776	201589	205788	210227	215211
SPP	228999	215277	214993	219735	225647	233470	238586	246297	251508	264221	270532
SOUTHEAST	94156	86699	83775	85519	88058	91059	92672	96373	98350	107114	109725
WEST CENTRAL	83085	76422	77853	79276	81128	84414	86512	89102	91327	94158	96744
NORTHERN	51758	52156	53365	54940	56461	57997	59402	60822	61831	62949	64063
WSCC	468333	472712	485679	499696	514036	523247	532288	543947	557177	571514	578167
NW POOL	211020	181594	189023	196810	202027	204848	206540	210558	214746	218138	219594
ROCKY MT AREA	40474	40388	42081	43122	44611	45571	46757	47304	47977	49523	50507
ARIZ-N.MEX	53227	59458	63083	64776	66501	68476	70632	72224	74126	75312	77310
CALIF-SO.NEV	163612	191272	191492	194988	200897	204352	208359	213861	220328	228541	230756
TOTAL(U.S.)	2438436	2464868	2513696	2575607	2637652	2692574	2748264	2804412	2852918	2920800	2979388
NERC-CANADA											
MAPP	33983	35258	35316	34853	35220	35820	40395	43050	43334	[illegible]	43950
NPCC	238568	244246	257857	269597	282604	294711	307506	310277	314817	319220	322992
NEW BRUNSWICK	10619	9449	8972	10001	10219	12477	15984	15221	15518	15799	16137
NOVA SCOTIA	7069	6777	6949	7146	7810	8115	8820	9269	9649	10011	10401
ONTARIO	115916	121176	126310	131387	135704	139692	143620	148851	154419	157024	160189
QUEBEC	104964	106844	115626	121063	128871	134427	139082	136936	135231	136386	136265
WSCC	81781	74855	76652	79081	80985	83345	86020	88845	91064	93482	95877
TOTAL(CANADA)	354332	354359	369825	383531	398809	413876	433921	442172	449215	456333	462819
NERC-MEXICO											
WSCC	2654	3969	4969	5332	5578	5815	6063	6321	6650	6972	7318
TOTAL(MEXICO)	2654	3969	4969	5332	5578	5815	6063	6321	6650	6972	7318
NERC-TOTAL	2795422	2823196	2888490	2964470	3042039	3112265	3188248	3252905	3308783	3384105	3449525

a) Total electric energy production by primary energy sources. Includes pumped storage load, but excludes pumped storage generation.

b) MAIN subregional data not defined.

TABLE 21

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED INTERNAL GENERATION FOR LOAD[a] - Millions kWh
(1986-1995 FORECAST)

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	417011	413300	416500	431900	438900	444800	447500	453900	458300	466300	474400
ERCOT	174828	174307	179574	184406	190845	199906	208889	215394	225420	235604	243480
MAAC	168676	175045	175999	181325	184985	189052	193674	197836	202404	206790	210011
MAIN[b]	168962	175282	181329	184392	187926	191344	195139	196983	199127	202382	204965
CMNWLTH EDISON	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
EAST MISSOURI	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
S CENT ILLINOIS	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
WIS-UPPER MICH	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
MAPP	107079	115161	118062	118533	120289	121304	120482	123595	125126	125505	128081
NPCC	200161	202548	208570	211607	213542	215965	214450	218022	222854	229705	237505
NEW YORK	118215	113767	117343	117175	116935	119776	121690	122695	124586	126807	129895
NEW ENGLAND	81946	88781	91227	94432	96607	96189	92760	95327	98268	102898	107610
SERC	500472	517614	529086	540026	557603	569417	592928	604125	606517	614351	627663
FLORIDA	90502	89895	93919	98869	101533	103802	107711	110987	113826	116839	123589
SOUTHERN	136790	145561	146706	147736	149415	151764	164125	164124	158181	156675	156224
TVA	103930	106661	108570	112523	119736	121971	125189	128328	129722	131648	133707
VACAR	169250	175497	179891	180898	186919	191880	195903	200686	204788	209189	214143
SPP	228953	215231	214947	219689	225601	233424	238540	246251	251462	264175	270486
SOUTHEAST	94156	86699	83775	85519	88058	91059	92672	96373	98350	107114	109725
WEST CENTRAL	83039	76376	77807	79230	81082	84368	86466	89056	91281	94112	96698
NORTHERN	51758	52156	53365	54940	56461	57997	59402	60822	61831	62949	64063
WSCC	469888	475197	488237	502238	516602	525692	534753	546368	559477	573695	580078
NW POOL	211020	181594	189023	196810	202027	204848	206540	210558	214746	218138	219594
ROCKY MT-AREA	40385	40159	41883	42954	44443	45403	46589	47136	47809	49355	50339
ARIZ-N.MEX	53151	59371	63010	64703	66414	68407	70567	72152	74054	75223	77220
CALIF-SO NEV	165332	194033	194321	197771	203718	207034	211057	216522	222868	230979	232925
TOTAL(U.S.)	2436030	2463685	2512304	2574116	2636293	2690904	2746355	2802474	2850687	2918507	2976669
NERC-CANADA											
MAPP	33983	35258	35316	34853	35220	35920	40395	43050	43334	43631	43950
NPCC	238476	244246	257857	269597	282604	294711	307506	310277	314817	319220	322992
NEW BRUNSWICK	10619	9449	8972	10001	10219	12477	15984	15221	15518	15799	16137
NOVA SCOTIA	7069	6777	6949	7146	7810	8115	8820	9269	9649	10011	10401
ONTARIO	115824	121176	126310	131387	135704	139692	143620	148851	154419	157024	160189
QUEBEC	104964	106844	115626	121063	128871	134427	139082	136936	135231	136386	136265
WSCC	81781	74855	76652	79081	80985	83345	86020	88845	91064	93482	95877
TOTAL(CANADA)	354240	354359	369825	383531	398809	413876	433921	442172	449215	456333	462819
NERC-MEXICO											
WSCC	2654	3969	4969	5332	5578	5815	6063	6321	6650	6972	7318
TOTAL(MEXICO)	2654	3969	4969	5332	5578	5815	6063	6321	6650	6972	7318
NERC-TOTAL	2792924	2822013	2887098	2962979	3040680	3110595	3186339	3250967	3306552	3381812	3446806

a) Total electric energy production by primary energy sources. Includes pumped storage generation, but excludes pumped storage load.

b) MAIN subregional data not defined.

TABLE 22

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL

LOADS & RESOURCES DATA SYSTEM

ACTUAL AND PROJECTED NET ELECTRICAL ENERGY IMPORTS (LESS EXPORTS) - Millions kWh

(1986-1995 FORECAST)

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	-29497	-24300	-17100	-17100	-14900	-13900	-9600	-9200	-5000	-5000	-5000
ERCOT[a]	15930	20514	21987	23448	25764	26452	27324	30186	30678	31023	33924
MAAC	20995	16703	18010	15627	15183	14517	13494	12855	11786	10928	11073
MAIN[b]	4627	1832	-1381	-2036	-1977	-2003	-2327	-522	855	1255	2393
CMNWLTH EDISON	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
EAST MISSOURI	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
S CENT ILLINOIS	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
WIS-UPPER MICH	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
MAPP	-1282	-6238	-5786	-4064	-3566	-2054	947	205	1386	3472	3388
NPCC	20621	24080	23829	26296	28166	29100	34522	35465	35511	33630	30539
NEW YORK	7817	13757	12357	14857	16857	15857	15857	16857	16857	16857	15857
NEW ENGLAND	12804	10323	11472	11439	11309	13243	18665	18608	18654	16773	14682
SERC	22176	8677	11178	13997	13160	15816	10100	13370	23355	29927	30336
FLORIDA	22240	22034	21978	20816	21477	22671	22219	22236	23120	23872	20479
SOUTHERN	-9997	-18678	-15729	-15528	-15528	-14797	-21115	-18017	-9607	-4760	-791
TVA	4392	641	-141	-342	-34	-34	-37	-386	-29	-36	-34
VACAR	5541	4680	5070	9051	7245	7976	9033	9537	9871	10851	10682
SPP	724	8126	9570	9745	8349	6166	7059	6391	7625	1251	1232
SOUTHEAST	13883	15431	16599	16152	14462	13430	13840	13293	13934	7648	7681
WEST CENTRAL	-8894	-3183	-2950	-2498	-2059	-3016	-2439	-2310	-1915	-2025	-2172
NORTHERN	-4265	-4122	-4069	-3909	-4054	-4248	-4342	-4592	-4394	-4372	-4277
WSCC	8902	12056	13617	14560	12440	13087	14850	16456	16099	14573	18646
NW POOL	-25371	1705	314	-446	-1296	-1323	-1289	-1356	-1369	-1385	-588
ROCKY MT-AREA	-4981	-3022	-3462	-3286	-3445	-3467	-3462	-2927	-2499	-2477	-2453
ARIZ-N.MEX	-2516	-6991	-7050	-7462	-7613	-7750	-8146	-7762	-7671	-6882	-6768
CALIF-SO NEV	41770	20364	23815	25754	24794	25627	27747	28501	27638	25317	28455
TOTAL(U.S.)	63196	61450	73924	80473	82619	87181	96369	106206	122295	121059	126531
NERC-CANADA											
MAPP	-7259	-7711	-6182	-4646	-4246	-4144	-8051	-10003	-9563	-9121	-8773
NPCC	8364	4697	2330	-702	-1820	-5429	-9210	-3852	-542	3406	8319
NEW BRUNSWICK	-548	1289	2213	1592	1722	-218	-3407	-2330	-2320	-2310	-2313
NOVA SCOTIA	139	531	623	771	453	492	130	0	0	0	0
ONTARIO	225	-3457	-5244	-6955	-8267	-8809	-9375	-10500	-12200	-10400	-9000
QUEBEC[c]	8548	6334	4738	3890	4272	3106	3442	8978	13978	16116	19632
WSCC	-10108	-1028	-463	-464	-318	-318	-318	-319	-318	-318	-318
TOTAL(CANADA)	-9003	-4042	-4315	-5812	-6384	-9891	-17579	-14174	-10423	-6033	-772
NERC-MEXICO											
WSCC	-42	-999	-1695	-1695	-1695	-1695	-1695	-1695	-1695	-1695	-1695
TOTAL(MEXICO)	-42	-999	-1695	-1695	-1695	-1695	-1695	-1695	-1695	-1695	-1695
NERC-TOTAL	54151	56409	67914	72966	74540	75595	77095	90337	110177	113331	124064

a) Includes cogeneration and other non-ERCOT owned sources.

b) MAIN subregional data not defined.

c) Although Québec exports electric energy to the U.S., it also imports energy from Churchill Falls in Labrador(Newfoundland), sometimes becoming a net importer of electric energy. Because Churchill Falls is not a NERC member, this results in NPCC(Canada) being a net importer in certain years, and reduces the amount which NERC(Canada) as a whole appears to be exporting to the U.S..

FOSSIL FUEL REQUIREMENTS

This section of the report provides a tabulation of the fossil fuels actually used in 1985 and projected to be used over the 1986-1995 period for electric utility energy production by coal, oil and natural gas. These estimates of fuel use are reported directly to the North American Electric Reliability Council.

Table 23 shows the actual and projected coal requirements for electric energy production for NERC-U.S., NERC-CANADA, NERC-MEXICO, and NERC-TOTAL. These same coal requirements are shown by NERC region and subregion in Table 24. Tables 25 and 26 show similar data for oil, while Tables 27 and 28 summarize natural gas requirements.

NERC-TOTAL coal use is projected to increase by 18% (18% in the U.S. and 25% in Canada) from 1986 to 1995. Oil is also estimated to increase for NERC-TOTAL over the forecast period by 40% (36% in U.S., 124% in Canada, and 112% in Mexico). In contrast, net natural gas use in NERC is projected to decrease over the forecast period by about 9% (10% decrease in the U.S. and 177% increase in Canada).

Appendix C provides further detail on the industry's fossil fuel requirements by NERC region and subregion for particular types of coal, oil and natural gas.

TABLE 23

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
COAL REQUIREMENTS FOR ELECTRIC ENERGY PRODUCTION BY TYPE - 1000's TONS
(1986-1995 FORECAST)

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
WESTERN LIGNITE[a]	54036	59471	63349	67298	68025	68680	69943	78401	86898	94745	102132
WESTERN COAL[a]	230451	217538	222802	229577	235582	238425	240917	243922	247560	254025	262660
OTHER COAL[a]	233267	229689	224566	224376	226894	227842	235506	239143	242263	244136	246336
TOTAL (U.S.)[b]	688181	675934	677127	692708	704277	710694	722696	739989	756828	775645	797392
NERC-CANADA											
WESTERN LIGNITE	10257	8834	9202	9699	9958	10085	10357	10304	10216	10442	10703
WESTERN COAL	21011	21308	21719	22049	22503	24123	25470	26595	24937	25866	26712
OTHER COAL	11340	8462	7481	6451	5409	6145	6971	6493	9320	9548	10980
TOTAL (CANADA)	42608	38604	38402	38199	37870	40353	42798	43392	44473	45856	48395
NERC-MEXICO											
WESTERN LIGNITE	0	0	0	0	0	0	0	0	0	0	0
WESTERN COAL	0	0	0	0	0	0	0	0	0	0	0
OTHER COAL	0	0	0	0	0	0	0	0	0	0	0
TOTAL (MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL											
WESTERN LIGNITE[a]	64293	68305	72551	76997	77983	78765	80300	88705	97114	105187	112835
WESTERN COAL[a]	251462	238846	244521	251626	258085	262548	266387	270517	272497	279891	289372
OTHER COAL[a]	244607	238151	232047	230827	232303	233987	242477	245636	251583	253684	257316
NERC-TOTAL[b]	730789	714538	715529	730907	742147	751047	765494	783381	801301	821501	845787

a) Western lignite, western coal and other coal do not add to the total by the amount of the ECAR coal figures on Table 24. Coal sources are indeterminate for ECAR.
b) Includes ECAR coal figures shown on Table 24.

TABLE 24

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
REGIONAL COAL REQUIREMENTS FOR ELECTRIC ENERGY PRODUCTION - 1000's TONS
(1986-1995 FORECAST)

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	170427	169236	166410	171457	173776	175747	176330	178523	180107	182739	186264
ERCOT	56161	56793	59433	62626	64176	64864	68563	76345	83746	93295	102569
MAAC	38936	38433	38454	37478	38360	37961	38654	39499	40020	40875	41861
MAIN	55402	56268	53971	52044	52958	53864	54289	55202	56559	56901	58249
CMNWLTH EDISON	13568	13660	11390	8960	9510	9470	9280	9820	10450	10720	11250
EAST MISSOURI	10155	10656	11134	10691	11450	11255	11214	11638	11786	11531	12222
S CENT ILLINOIS	16296	15472	14156	14113	14089	14810	15031	14532	14869	15010	14474
WIS-UPPER MICH	15383	16478	17291	18280	17909	18329	18764	19212	19454	19640	20203
MAPP	56402	52626	52413	54908	55145	56487	54155	54968	56726	57516	58436
NPCC	15007	15457	16342	17115	16890	16486	16156	16927	17410	17757	17926
NEW YORK	9794	9122	10247	11206	11186	10848	10803	11302	11441	11710	11921
NEW ENGLAND	5213	6335	6095	5909	5704	5638	5353	5625	5969	6047	6005
SERC	135288	131516	126551	126173	127668	128291	134971	136555	137598	139144	138247
FLORIDA	14227	15332	16918	17921	19723	19434	19931	20090	20348	20500	20781
SOUTHERN	52768	50667	47552	46551	45840	46059	49014	48858	47294	46701	46388
TVA	32768	29636	27296	27592	26722	25918	27255	28572	28359	26712	27426
VACAR	35525	35881	34785	34109	35383	36880	38771	39035	41597	44231	43652
SPP	77141	70496	73169	74863	75284	76533	77264	78432	80170	81521	85605
SOUTHEAST	22776	17377	18023	18650	17551	17715	17827	17745	18651	18704	21202
WEST CENTRAL	27967	27916	28811	29006	30118	30711	30824	31402	32019	32728	34004
NORTHERN	26398	25203	26335	27207	27615	28107	28613	29285	29500	30089	30399
WSCC	83417	85109	90384	96042	100018	100461	102314	103538	104492	106897	108235
NW POOL	33110	30299	32936	37190	40783	40956	41144	41339	41409	41340	41343
ROCKY MT-AREA	15267	16691	17524	18036	18851	19377	19971	20207	20433	21329	21906
ARIZ-N.MEX	22425	21943	22317	21755	22534	23323	24633	25232	25655	25884	26681
CALIF-SO.NEV	12615	16176	17607	19061	17850	16805	16566	16760	16995	18344	18305
TOTAL(U.S.)	688181	675934	677127	692708	704277	710694	722696	739989	756828	775645	797392
NERC-CANADA											
MAPP	9344	7737	8101	8602	8861	8993	9255	9504	9616	9842	10103
NPCC	14803	11741	10621	9419	8181	9391	10410	9793	9920	10148	11580
NEW BRUNSWICK	575	461	552	548	572	697	846	826	829	832	834
NOVA SCOTIA	2153	2118	2213	2323	2355	2444	2965	3127	3251	3346	3476
ONTARIO	12075	9162	7856	6548	5254	6250	6599	5840	5840	5970	7270
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	18461	19126	19680	20178	20828	21969	23133	24095	24937	25866	26712
TOTAL(CANADA)	42608	38604	38402	38199	37870	40353	42798	43392	44473	45856	48395
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	730789	714538	715529	730907	742147	751047	765494	783381	801301	821501	845787

TABLE 25
NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
OIL REQUIREMENTS FOR ELECTRIC ENERGY PRODUCTION BY TYPE - 1000's BARRELS
(1986-1995 FORECAST)

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
DISTILLATE OIL[a]	12433	13499	12050	13359	13661	14699	15459	14224	15813	15870	17209
DISTILLATE OIL-ST	7114	5841	5648	5681	5920	6117	6338	6243	7094	7139	7044
DISTILLATE OIL-CT	4419	7115	6234	7526	7524	8399	8947	7449	8159	8132	9344
DISTILLATE OIL-CC	900	543	168	152	217	183	174	482	560	599	820
RESIDUAL OIL[b]	143664	137418	121220	116935	123595	121042	129168	138758	152770	164638	184735
RESIDUAL OIL-ST	143049	137019	120883	116578	123141	120532	128237	137508	151209	163118	181481
RESIDUAL OIL-CT	249	208	281	260	321	440	814	1074	1221	1022	1154
RESIDUAL OIL-CC	366	191	56	97	133	70	117	176	340	498	2100
CRUDE OIL-ST	44	291	258	182	190	1669	1821	2162	2559	2929	3369
TOTAL (U.S.)	156141	151208	133528	130476	137446	137410	146448	155144	171142	183437	205312
NERC-CANADA											
DISTILLATE OIL[a]	3964	3518	2614	2496	2484	2202	2062	1933	2038	2040	2148
DISTILLATE OIL-ST	319	426	416	392	380	396	413	415	416	415	419
DISTILLATE OIL-CT	3645	3092	2198	2104	2104	1806	1649	1518	1622	1625	1729
DISTILLATE OIL-CC	0	0	0	0	0	0	0	0	0	0	0
RESIDUAL OIL[b]	4401	2632	2698	3189	4209	7253	11075	9970	10517	11097	11631
RESIDUAL OIL-ST	4401	2632	2698	3189	4209	7253	11075	9970	10517	11097	11631
RESIDUAL OIL-CT	0	0	0	0	0	0	0	0	0	0	0
RESIDUAL OIL-CC	0	0	0	0	0	0	0	0	0	0	0
CRUDE OIL-ST	0	0	0	0	0	0	0	0	0	0	0
TOTAL (CANADA)	8365	6150	5312	5685	6693	9455	13137	11903	12555	13137	13779
NERC-MEXICO											
DISTILLATE OIL[a]	276	132	129	128	128	128	128	128	128	128	128
DISTILLATE OIL-ST	0	0	0	0	0	0	0	0	0	0	0
DISTILLATE OIL-CT	276	132	129	128	128	128	128	128	128	128	128
DISTILLATE OIL-CC	0	0	0	0	0	0	0	0	0	0	0
RESIDUAL OIL[b]	2369	2102	1703	2170	2653	3118	3604	3640	3539	3936	4611
RESIDUAL OIL-ST	2369	2102	1703	2170	2653	3118	3604	3640	3539	3936	4611
RESIDUAL OIL-CT	0	0	0	0	0	0	0	0	0	0	0
RESIDUAL OIL-CC	0	0	0	0	0	0	0	0	0	0	0
CRUDE OIL-ST	0	0	0	0	0	0	0	0	0	0	0
TOTAL (MEXICO)	2645	2234	1832	2298	2781	3246	3732	3768	3667	4064	4739
NERC-TOTAL											
DISTILLATE OIL[a]	16673	17149	14793	15983	16273	17029	17649	16285	17979	18038	19484
DISTILLATE OIL-ST	7433	6267	6064	6073	6300	6513	6751	6658	7510	7554	7463
DISTILLATE OIL-CT	8340	10339	8561	9758	9756	10333	10724	9095	9909	9885	11201
DISTILLATE OIL-CC	900	543	168	152	217	183	174	482	560	599	820
RESIDUAL OIL[b]	150434	142152	125621	122294	130457	131413	143847	152368	166826	179671	200977
RESIDUAL OIL-ST	149819	141753	125284	121937	130003	130903	142916	151118	165265	178151	197723
RESIDUAL OIL-CT	249	208	281	260	321	440	814	1074	1221	1022	1154
RESIDUAL OIL-CC	366	191	56	97	133	70	117	176	340	498	2100
CRUDE OIL-ST	44	291	258	182	190	1669	1821	2162	2559	2929	3369
NERC-TOTAL	167151	159592	140672	138459	146920	150111	163317	170815	187364	200638	223830

a) Includes #1 and #2 fuel oil, kerosene and jet fuel. Also includes amounts used at coal-burning plants for startup and for flame stabilization.

b) Includes #4, #5 and #6 fuel oil.

TABLE 26

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
REGIONAL OIL REQUIREMENTS FOR ELECTRIC ENERGY PRODUCTION - 1000 s BARRELS
(1986-1995 FORECAST)

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC U.S.											
ECAR	2636	2625	2625	2625	2695	2955	3005	3005	3005	3005	3005
ERCOT	1335	1317	1316	1508	1512	2237	2282	2584	2715	2885	3056
MAAC	27446	18882	17793	18569	20253	18539	18034	19952	21044	24946	26189
MAIN	3512	2177	1563	840	1221	1232	1256	1816	2294	3119	4029
CMNWLTH EDISON	2773	1330	820	260	640	560	630	1160	1690	2590	3370
EAST MISSOURI	354	474	464	208	219	260	211	284	208	203	306
S CENT ILLINOIS	172	199	131	147	155	207	214	179	191	139	156
WIS-UPPER MICH	213	174	148	225	207	205	201	193	205	187	197
MAPP	283	516	438	469	601	534	559	580	804	629	665
NPCC	88767	104794	89028	85577	88975	84919	89674	91417	98591	105038	116924
NEW YORK	43817	46773	45264	41492	44397	44504	49518	52375	54697	55541	57924
NEW ENGLAND	44950	58021	43764	44085	44578	40415	40156	39042	43894	49497	59000
SERC	26850	18990	19086	19363	20546	23779	27647	30887	35584	35516	43048
FLORIDA	23860	16412	16938	16128	16942	19553	22869	25071	28817	27932	35582
SOUTHERN	465	364	360	364	421	436	426	396/	433	482	550
TVA	381	677	349	458	375	331	409	523	555	473	557
VACAR	2144	1537	1439	2413	2808	3459	3943	4897	5779	6629	6359
SPP	726	532	516	551	672	799	833	847	2217	2855	2399
SOUTHEAST	273	113	77	86	88	88	92	118	1478	2122	1660
WEST CENTRAL	142	105	116	125	243	355	362	363	364	364	363
NORTHERN	311	314	323	340	341	356	379	366	375	369	376
WSCC*	4586	1375	1163	974	971	2416	3158	4056	4888	5444	5997
NW POOL	26	0	0	0	0	0	499	499	499	499	499
ROCKY MT-AREA	31	122	122	118	128	122	130	133	125	161	179
ARIZ-N.MEX	151	29	6	5	5	5	17	661	984	955	978
CALIF-SO.NEV	4378	1224	1035	851	838	2209	2512	2763	3280	3829	4341
TOTAL(U.S.)	156141	151208	133528	130476	137446	137410	146448	155144	171142	183437	205312
NERC-CANADA											
MAPP	3681	3172	2272	2172	2172	1872	1672	1572	1672	1672	1772
NPCC	4684	2978	3040	3513	4521	7583	11465	10331	10883	11465	12007
NEW BRUNSWICK	3399	1774	1769	2582	2816	5732	10619	9496	9945	10370	10882
NOVA SCOTIA	1000	921	980	674	1470	1601	588	583	686	843	873
ONTARIO	285	283	291	257	235	250	258	252	252	252	252
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	8365	6150	5312	5685	6693	9455	13137	11903	12555	13137	13779
NERC-MEXICO											
WSCC	2645	2234	1832	2298	2781	3246	3732	3768	3667	4064	4739
TOTAL(MEXICO)	2645	2234	1832	2298	2781	3246	3732	3768	3667	4064	4739
NERC-TOTAL	167151	159592	140672	130459	146920	150111	163317	170815	187364	200638	223830

a) Excludes cogeneration fuel consumption.

TABLE 27

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
NATURAL GAS REQUIREMENTS FOR ELECTRIC ENERGY PRODUCTION BY TYPE - 1000 MCF
(1986-1995 FORECAST)

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
FIRM NAT.GAS[a]	1919094	1626737	1486397	1376270	1352251	1348319	1399902	1392529	1469678	1481304	1495444
FIRM NAT.GAS-ST	1812413	1536153	1393758	1286371	1266818	1258339	1307836	1302989	1369632	1379544	1391972
FIRM NAT.GAS-CT	15729	17711	16670	15638	16079	17364	17178	17494	24336	25843	29738
FIRM NAT.GAS-CC	90952	72873	75969	74261	69354	72596	74888	72046	75710	75917	73734
INTER.NAT.GAS[a]	1377639	1185538	1093233	837784	868549	953461	990752	978403	1045931	1058186	1010079
INTER.NAT.GAS-ST	1279229	966808	860669	763096	789482	853236	878864	858523	919447	922945	869713
INTER.NAT.GAS-CT	78226	160678	177923	22381	21614	32383	34163	37652	40003	42968	46101
INTER.NAT.GAS-CC	20184	58052	54641	52307	57453	67842	77725	82228	86481	92273	94265
TOTAL (U.S.)[b]	3461822	2972159	2745082	2366161	2366118	2455967	2541511	2527510	2674735	2698458	2661713
NERC-CANADA											
FIRM NAT.GAS	18761	24865	34906	44767	46452	42010	36128	34427	37800	39121	41098
FIRM NAT.GAS-ST	9605	13830	26953	34065	34812	27307	22675	21788	24207	24830	26798
FIRM NAT.GAS-CT	9156	11035	7953	10702	11640	14703	13453	12639	13593	14291	14300
FIRM NAT.GAS-CC	0	0	0	0	0	0	0	0	0	0	0
INTER.NAT.GAS	16	6000	6000	6000	6000	6950	18825	31926	40390	43535	44371
INTER.NAT.GAS-ST	16	6000	6000	6000	6000	6950	18825	31926	40390	43535	44371
INTER.NAT.GAS-CT	0	0	0	0	0	0	0	0	0	0	0
INTER.NAT.GAS-CC	0	0	0	0	0	0	0	0	0	0	0
TOTAL (CANADA)	18777	30865	40906	50767	52452	48960	54953	66353	78190	82656	85469
NERC-MEXICO											
FIRM NAT.GAS	0	0	0	0	0	0	0	0	0	0	0
FIRM NAT.GAS-ST	0	0	0	0	0	0	0	0	0	0	0
FIRM NAT.GAS-CT	0	0	0	0	0	0	0	0	0	0	0
FIRM NAT.GAS-CC	0	0	0	0	0	0	0	0	0	0	0
INTER.NAT.GAS	0	0	0	0	0	0	0	0	0	0	0
INTER.NAT.GAS-ST	0	0	0	0	0	0	0	0	0	0	0
INTER.NAT.GAS-CT	0	0	0	0	0	0	0	0	0	0	0
INTER.NAT.GAS-CC	0	0	0	0	0	0	0	0	0	0	0
TOTAL (MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL											
FIRM NAT.GAS[a]	1937855	1651602	1521303	1421037	1398703	1390329	1436030	1426956	1507478	1520425	153654
FIRM NAT.GAS-ST	1822018	1549983	1420711	1320436	1301630	1285646	1330511	1324777	1393839	1404374	1418770
FIRM NAT.GAS-CT	2488	28746	24623	26340	27719	32087	30631	30133	37929	40134	44038
FIRM NAT.GAS-CC	90952	72873	75969	74261	69354	72596	74888	72046	75710	75917	73734
INTER.NAT.GAS[a]	1377655	1191538	1099233	843784	874549	960411	1009577	1010329	1086321	1101721	1054450
INTER.NAT.GAS-ST	1279245	972808	866669	769096	795482	860186	897689	890449	959837	966480	914084
INTER.NAT.GAS-CT	78226	160678	177923	22381	21614	32383	34163	37652	40003	42968	46101
INTER.NAT.GAS-CC	20184	58052	54641	52307	57453	67842	77725	82228	86481	92273	94265
NERC-TOTAL[b]	3480599	3003024	2785988	2416928	2418570	2504927	2596464	2593863	2752925	2781114	2747182

a) Firm and interruptible natural gas subtotals do not add to the total by the amount of the SERC(Florida) natural gas figures shown on Table 28. SERC(Florida) does not distinguish between firm and interruptible natural gas.

b) Includes SERC(Florida) natural gas figures shown on Table 28.

TABLE 28

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
REGIONAL NATURAL GAS REQUIREMENTS FOR ELECTRIC ENERGY PRODUCTION - 1000 MCF
(1986-1995 FORECAST)

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	3523	2670	2005	2005	2005	2005	2005	2005	2005	2005	2005
ERCOT	1032313	1014339	981576	874071	864102	915187	949324	919155	955196	931434	885505
MAAC	72580	69821	84953	87737	96996	94618	102851	110904	111309	110574	117888
MAIN	6538	5227	3060	2390	2809	2906	3056	3612	4226	5235	6669
CMNWLTH EDISON	4574	3110	310	80	230	140	120	290	510	690	1410
EAST MISSOURI	402	260	260	260	260	260	260	260	260	260	260
S CENT ILLINOIS	447	40	38	47	26	35	50	70	83	46	51
WIS-UPPER MICH	1115	1817	2452	2003	2293	2471	2626	2992	3373	4239	4948
MAPP	515693	136070	157052	4135	4169	4467	4642	4981	5205	5613	5992
NPCC	220846	162676	121322	90981	56418	55863	36322	11757	13004	13569	15562
NEW YORK	172439	160000	120000	90000	55000	55000	35000	11000	11000	11000	11000
NEW ENGLAND	48407	2676	1322	981	1418	863	1322	757	2004	2569	4562
SERC	174496	167490	173188	159822	154329	163754	159221	165903	168556	169255	165246
FLORIDA	165089	159884	165452	152107	145318	154187	150857	156578	159126	158968	156190
SOUTHERN	7823	5229	5028	5692	5749	5710	4773	4203	4029	3840	3590
TVA[a]	0	0	0	0	0	0	0	0	0	0	0
VACAR	1584	2377	2708	2023	3262	3857	3591	5122	5401	6447	5466
SPP	724922	644624	580044	607244	621376	670249	711156	749264	794783	814056	805871
SOUTHEAST	429864	378261	315852	334681	347794	373028	385803	411708	440905	443346	425689
WEST CENTRAL	277815	250533	246848	254613	253565	275096	299665	308617	321282	335728	339513
NORTHERN	17243	15830	17344	17950	20017	22125	25688	28939	32596	34982	40669
WSCC[b]	710911	769242	641882	537776	563914	546918	572934	559929	620451	646717	656975
NW POOL	3320	9408	9744	10224	13560	32357	41683	42085	41791	41791	41371
ROCKY MT AREA	4153	3793	3807	4014	4042	3816	4489	5093	7116	4964	3515
ARIZ-N.MEX	62733	54893	47807	41630	43508	39605	35086	35373	44376	51405	56442
CALIF-SO.NEV	640705	701148	580524	481908	502804	471140	491676	477378	527168	548557	555647
TOTAL(U.S.)	3461822	2972159	2745082	2366161	2366118	2455967	2541511	2527510	2674735	2698458	2661713
NERC-CANADA											
MAPP	4162	7566	8025	9132	10185	10644	10158	8862	9834	10509	10347
NPCC	235	156	155	148	154	154	151	150	150	150	150
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	235	156	155	148	154	154	151	150	150	150	150
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	14380	23143	32726	41487	42113	38162	44644	57341	68206	71997	74972
TOTAL(CANADA)	18777	30865	40906	50767	52452	48960	54953	66353	78190	82656	85469
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	3480599	3003024	2785988	2416928	2418570	2504927	2596464	2593863	2752925	2781114	2747182

a) Gas is used in 30% of TVA's gas turbines when available and economic. TVA does not predict natural gas use in the long range planning process.

b) Excludes cogeneration fuel consumption.

PLANNED GENERATING UNIT CHANGES

This section of the report tabulates the planned NERC generating unit additions, retirements, and oil-to-coal conversions over the April 1, 1986 to December 31, 1995 period.

Table 29 summarizes the planned generating unit changes by fuel type over the forecast period in NERC-U.S., NERC-CANADA, NERC-MEXICO, and NERC-TOTAL. In this table, all non-utility generation (cogeneration and small power production facilities defined as qualifying facilities under the Public Utility Regulatory Policies Act (PURPA) of 1978 and any other non-utility generation reported by electric utilities) is grouped into the OTHER (Non-Utility) category. Planned generating capacity for NERC over the 1986-1995 period totals 101;000 MW. Of this total, about 91,000 MW or about 90% will be utility-owned capacity and the other 10% will be non-utility generation. Planned retirements during this period will approach 12,000 MW and oil-to-coal conversions are estimated to be only about 1,400 MW, continuing a decreasing trend of the last few years.

Table 30 tabulates the total projected (utility and non-utility) generating unit additions by NERC region and subregion. Similarly, Tables 31 and 32 show planned nuclear and coal-fired generating unit additions. A detailed listing by unit of total generating additions, nuclear additions, and coal-fired additions is included in Appendices D, E and F, respectively. Further detail on the jointly-owned generating units is included in Appendix H.

The estimated 9,800 MW of non-utility (as defined above) generating unit additions of Table 29 are shown by NERC region and subregion in Table 33. Since some utilities treat non-utility generation as a reduction in load while other utilities treat non-utility generation as imports, the 9,800 MW of projected non-utility generating unit additions do not necessarily include all planned additions of this type of capacity. Details on the specific non-utility generating units comprising Table 33 are included in Appendix G.

Additional information on the 12,000 MW of planned generating retirements summarized in Table 34 is included in Appendix I.

All of the generating unit Appendices D through I list the generators chronologically according to in-service dates. Subtotals based on summer MW ratings are included for each year with a MW total for the forecast period.

The specific symbol codes used throughout the appendices for unit type, fuel type, and construction status are listed below. Identification of generators as to utility or non-utility ownership is defined under a new U/NU (or Utility/Non-Utility) category also shown below. In addition, states and provinces in which the units are located are denoted by their two-character postal codes.

Generating units which were identified by the utilities as jointly-owned are denoted with a "J" in the far right-hand column of Appendices D, E and F. In these appendices, only the name of the majority utility owner is listed, along with the total summer MW generating capability of the unit. However, Appendix H gives additional detail on jointly-owned generating units.

Utility system abbreviations follow the conventions used in the regional IE-411 reports to the U.S. Department of Energy (DOE).

The data in Tables 29 through 34 and in Appendices D through I are from the April 1, 1986 IE-411 reports to DOE, Item 2-B.

SYMBOL CODES

UNIT TYPE

ST	STEAM TURBINE-NON NUCLEAR
NB	STEAM-BWR NUCLEAR
NP	STEAM-PWR NUCLEAR
NH	STEAM-HTGR NUCLEAR
CD	CANDU
IC	INTERNAL COMBUSTION
GT	COMBUSTION TURBINE
HY	CONVENTIONAL HYDRO
PS	PUMPED STORAGE HYDRO
CW	COMBINED CYCLE-STEAM PORTION-WASTE HEAT ONLY
CA	COMBINED CYCLE-STEAM PORTION-AUXILIARY FIRED
CT	COMBINED CYCLE-COMBUSTION TURBINE PORTION
CG	COGENERATION
JE	JET ENGINE
FC	FUEL CELL
SO	SOLAR
WM	WIND POWER
GE	GEOTHERMAL
ZZ	NONE OF THE ABOVE
UN	UNKNOWN AT THIS TIME

CONSTRUCTION STATUS

P	PLANNED FOR INSTALLATION, BUT NOT UTILITY AUTHORIZED
L	REGULATORY APPROVAL PENDING
T	REGULATORY APPROVAL RECEIVED, BUT NOT UNDER CONSTRUCTION
U	UNDER CONSTRUCTION, LESS THAN APPROXIMATELY 50% OF PLANT COMPLETED
V	UNDER CONSTRUCTION, GREATER THAN APPROXIMATELY 50% OF PLANT COMPLETED
R	PLANNED FOR RETIREMENT

OWNERSHIP (or U/NU)

U	UTILITY
CG	NON-UTILITY COGENERATOR
ZZ	NON-UTILITY SMALL POWER PRODUCER

FUEL TYPE

WH	WASTE HEAT
COL	COAL-GENERAL
BIT	BITUMINOUS COAL
SUB	SUB-BITUMINOUS COAL
ANT	ANTHRACITE COAL
LIG	LIGNITE COAL
PC	PETROLEUM COKE
LNG	LIQUIFIED NATURAL GAS
MTH	METHANOL
GAS	GAS-GENERAL
NG	NATURAL GAS
RG	REFINERY GAS
BFG	BLAST FURNACE GAS
COG	COKE OVEN GAS
UNK	UNKNOWN AT THIS TIME
GST	GEOTHERMAL STEAM
MUL	MULTI-FUELED
REF	REFUSE-SOLID WASTE
OIL	OIL-GENERAL
FO1	NO. 1 FUEL OIL
FO2	NO. 2 FUEL OIL
FO4	NO. 4 FUEL OIL
FO5	NO. 5 FUEL OIL
FO6	NO. 6 FUEL OIL
CRU	CRUDE OIL
TOP	TOP CRUDE OIL
JF	JET FUEL
KER	KEROSENE
LPG	LIQUID PROPANE GAS
RRO	RE-REFINED MOTOR OIL
SNG	SYNTHETIC NATURAL GAS
UR	URANIUM
PL	PLUTONIUM
WAT	WATER
TH	THORIUM
SUN	SUN
WND	WIND
G/C	GAS AND/OR COAL
O/C	OIL AND/OR COAL
W/G	WOOD AND/OR GAS
W/O	WOOD AND/OR OIL
WOD	WOOD
WD	WOOD AND WOOD WASTE
PEA	PEAT
ZZ	NONE OF THE ABOVE

TABLE 29
NERC GENERATING UNIT CHANGES
ADDITIONS, RETIREMENTS AND CONVERSIONS (1986-1995)

Type	NERC-U.S.		NERC-CANADA		NERC-MEXICO[d]		NERC-TOTAL	
	Thousands of MW	% of Total	Thousands of MW	% of Total	Thousands of MW	% of Total	Thousands of MW	% of Total
NUCLEAR	29.8	34.4	5.2	37.6	0.0	0.0	35.0	34.7
COAL	30.7	35.4	3.0	21.8	0.0	0.0	33.7	33.3
HYDRO	2.4	2.7	4.9	35.3	0.0	0.0	7.3	7.2
OIL/GAS	7.7	8.9	0.5	4.0	0.3	62.6	8.5	8.4
PUMPED STORAGE	1.4	1.6	0.0	0.0	0.0	0.0	1.4	1.4
OTHER (Utility)	5.1[a]	5.9	0.0	0.0	0.2[b]	37.4	5.3	5.3
OTHER (Non-Utility)[c]	9.6	11.1	0.2	1.3	0.0	0.0	9.8	9.7
ADDITIONS	86.7	100.0	13.8	100.0	0.5	100.0	101.0	100.0
RETIREMENTS	11.8		0.2		0.0		12.0	
CONVERSIONS (Oil-to-Coal)	1.3		0.1		0.0		1.4	

a) Includes 973 MW of geothermal, 537 MW of miscellaneous, and 3,610 MW of unidentified capacity.
b) All geothermal capacity.
c) Cogeneration and small power production facilities under PURPA and other non-utility generation reported by electric utilities. Of the total, 5,533 MW (U.S.) and 180 MW (Canada) are projected to be cogeneration capacity.
d) Northern portion of Baja California, Mexico only.

TABLE 30

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
GENERATING UNIT ADDITIONS - SUMMER - MW
(April 1, 1986 - December 31, 1995)

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.										
ECAR	2787	939	1343	20	20	1797	682	368	202	728
ERCOT	1385	2603	1749	1250	806	1495	1852	2443	2330	2438
MAAC	1105	63	65	69	63	1118	989	63	193	548
MAIN	958	2237	1112	15	10	34	16	7	86	11
CMNWLTH EDISON	0	2210	1090	0	0	0	0	0	0	0
EAST MISSOURI	0	0	0	0	0	0	0	0	0	0
S CENT ILLINOIS	950	0	0	0	0	0	0	0	0	0
WIS-UPPER MICH	0	27	22	15	10	34	16	7	86	11
MAPP	450	857	0	0	0	0	56	0	80	500
NPCC	2445	2045	133	347	557	134	235	27	387	110
NEW YORK	140	2041	127	75	302	127	160	27	374	110
NEW ENGLAND	2305	4	6	272	255	7	75	0	13	0
SERC	2070	4097	2930	1524	490	1906	620	0	1262	1444
FLORIDA	0	993	610	0	0	20	0	0	0	1145
SOUTHERN	0	1958	1150	1524	200	666	120	0	50	38
TVA	1170	0	1170	0	0	0	0	0	1212	0
VACAR	900	1146	0	0	290	1220	500	0	0	261
SPP	1600	0	92	0	170	301	399	1385	429	2203
SOUTHEAST	940	0	17	0	0	0	0	0	0	1440
WEST CENTRAL	640	0	0	0	170	240	280	675	354	723
NORTHERN	20	0	75	0	0	61	119	710	75	40
WSCC	3350	3808	2371	773	1757	1078	1717	1117	2509	899
NW POOL	742	115	114	12	74	338	580	0	14	50
ROCKY MT-AREA	8	152	1	4	96	0	0	0	810	0
ARIZ-N.MEX	1270	1317	0	0	360	350	0	0	0	0
CALIF-SO.NEV	1330	2224	2256	757	1227	390	1137	1117	1665	849
TOTAL(U.S.)	16142	16649	9795	3998	3873	7863	6566	5410	7478	8881
NERC-CANADA										
MAPP	0	150	200	100	240	872	360	0	272	0
NPCC	1233	835	1762	980	30	1211	1543	862	911	391
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	300	0	0	0	300
ONTARIO	939	835	1762	0	30	911	911	230	279	91
QUEBEC	294	0	0	980	0	0	632	632	632	0
WSCC	0	0	0	386	366	386	0	360	0	360
TOTAL(CANADA)	1233	985	1962	1466	636	2469	1903	1222	1183	751
NERC-MEXICO										
WSCC	100	0	45	145	0	0	50	195	0	0
TOTAL(MEXICO)	100	0	45	145	0	0	50	195	0	0
NERC-TOTAL	17475	17634	11802	5609	4509	10332	8519	6827	8661	9632

TABLE 31

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
NUCLEAR GENERATING UNIT ADDITIONS - SUMMER - MW
(April 1, 1986 - December 31, 1995)

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.										
ECAR	2272	820	0	0	0	0	0	0	0	0
ERCOT	0	2400	1150	1250	0	0	0	0	0	0
MAAC	1067	0	0	0	0	1055	0	0	0	0
MAIN	950	2210	1090	0	0	0	0	0	0	0
CMNWLTH EDISON	0	2210	1090	0	0	0	0	0	0	0
EAST MISSOURI	0	0	0	0	0	0	0	0	0	0
S CENT ILLINOIS	950	0	0	0	0	0	0	0	0	0
WIS-UPPER MICH	0	0	0	0	0	0	0	0	0	0
MAPP	0	0	0	0	0	0	0	0	0	0
NPCC	2300	1889	0	0	0	0	0	0	0	0
NEW YORK	0	1889	0	0	0	0	0	0	0	0
NEW ENGLAND	2300	0	0	0	0	0	0	0	0	0
SERC	2070	2295	2320	0	0	0	0	0	1212	0
FLORIDA	0	0	0	0	0	0	0	0	0	0
SOUTHERN	0	1150	1150	0	0	0	0	0	0	0
TVA	1170	0	1170	0	0	0	0	0	1212	0
VACAR	900	1145	0	0	0	0	0	0	0	0
SPP	940	0	0	0	0	0	0	0	0	0
SOUTHEAST	940	0	0	0	0	0	0	0	0	0
WEST CENTRAL	0	0	0	0	0	0	0	0	0	0
NORTHERN	0	0	0	0	0	0	0	0	0	0
WSCC	1270	1270	0	0	0	0	0	0	0	0
NW POOL	0	0	0	0	0	0	0	0	0	0
ROCKY MT-AREA	0	0	0	0	0	0	0	0	0	0
ARIZ-N MEX	1270	1270	0	0	0	0	0	0	0	0
CALIF-SO NEV	0	0	0	0	0	0	0	0	0	0
TOTAL(U.S.)	10869	10884	4560	1250	0	1055	0	0	1212	0
NERC-CANADA										
MAPP	0	0	0	0	0	0	0	0	0	0
NPCC	835	835	1762	0	0	881	881	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0
ONTARIO	835	835	1762	0	0	881	881	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	835	835	1762	0	0	881	881	0	0	0
NERC-MEXICO										
WSCC	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	11704	11719	6322	1250	0	1936	881	0	1212	0

TABLE 32

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
COAL-FIRED GENERATING UNIT ADDITIONS - SUMMER - MW
(April 1, 1986 - December 31, 1995)

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.										
ECAR	515	100	1300	0	0	1795	600	0	0	300
ERCOT	1385	0	397	0	0	1395	1147	1893	2230	1138
MAAC	0	0	0	0	0	0	620	0	0	300
MAIN	0	0	12	0	0	0	0	0	72	0
CMNWLTH EDISON	0	0	0	0	0	0	0	0	0	0
EAST MISSOURI	0	0	0	0	0	0	0	0	0	0
S CENT ILLINOIS	0	0	0	0	0	0	0	0	0	0
WIS-UPPER MICH	0	0	12	0	0	0	0	0	72	0
MAPP	450	851	0	0	0	0	0	0	0	500
NPCC	0	0	0	0	0	0	0	0	0	0
NEW YORK	0	0	0	0	0	0	0	0	0	0
NEW ENGLAND	0	0	0	0	0	0	0	0	0	0
SERC	0	1773	550	1474	0	1386	0	0	0	88
FLORIDA	0	965	550	0	0	0	0	0	0	50
SOUTHERN	0	808	0	1474	0	666	0	0	0	38
TVA	0	0	0	0	0	0	0	0	0	0
VACAR	0	0	0	0	0	720	0	0	0	0
SPP	660	0	0	0	0	0	75	930	0	1880
SOUTHEAST	0	0	0	0	0	0	0	0	0	1340
WEST CENTRAL	640	0	0	0	0	0	0	300	0	500
NORTHERN	20	0	0	0	0	0	75	630	0	40
WSCC	1461	798	0	0	424	350	0	750	1560	0
NW POOL	700	37	0	0	0	0	0	0	0	0
ROCKY MT-AREA	0	0	0	0	64	0	0	0	810	0
ARIZ-N.MEX	0	0	0	0	360	350	0	0	0	0
CALIF-SO.NEV	761	761	0	0	0	0	0	750	750	0
TOTAL(U.S.)	4471	3522	2259	1474	424	4926	2442	3573	3862	4206
NERC-CANADA										
MAPP	0	0	0	0	0	272	0	0	272	0
NPCC	0	0	0	0	0	300	0	0	0	300
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	300	0	0	0	300
ONTARIO	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	386	366	386	0	360	0	360
TOTAL(CANADA)	0	0	0	386	366	958	0	360	272	660
NERC-MEXICO										
WSCC	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	4471	3522	2259	1860	790	5884	2442	3933	4134	4866

TABLE 33
NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
NON-UTILITY[a] GENERATING UNIT ADDITIONS - SUMMER - MW
(April 1, 1986 - December 31, 1995)

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.										
ECAR	0	119	43	20	20	2	2	2	2	2
ERCOT	0	0	0	0	0	0	0	0	0	0
MAAC	0	63	63	63	63	63	63	63	63	63
MAIN	0	21	22	15	10	34	16	7	24	11
CMNWLTH EDISON	0	0	0	0	0	0	0	0	0	0
EAST MISSOURI	0	0	0	0	0	0	0	0	0	0
S CENT ILLINOIS	0	0	0	0	0	0	0	0	0	0
WIS-UPPER MICH	0	21	22	15	10	34	16	7	24	11
MAPP	0	0	0	0	0	0	0	0	0	0
NPCC	135	149	123	287	508	65	157	25	74	70
NEW YORK	135	149	123	57	278	65	157	25	74	70
NEW ENGLAND	0	0	0	230	230	0	0	0	0	0
SERC	0	0	0	0	0	0	0	0	0	0
FLORIDA	0	0	0	0	0	0	0	0	0	0
SOUTHERN	0	0	0	0	0	0	0	0	0	0
TVA	0	0	0	0	0	0	0	0	0	0
VACAR	0	0	0	0	0	0	0	0	0	0
SPP	0	0	0	0	0	0	0	300	0	0
SOUTHEAST	0	0	0	0	0	0	0	0	0	0
WEST CENTRAL	0	0	0	0	0	0	0	300	0	0
NORTHERN	0	0	0	0	0	0	0	0	0	0
WSCC	491	1573	1664	637	941	191	736	144	191	207
NW POOL	37	43	101	2	0	0	0	0	0	0
ROCKY MT-AREA	2	152	0	0	0	0	0	0	0	0
ARIZ-N.MEX	0	0	0	0	0	0	0	0	0	0
CALIF-SO NEV	452	1378	1563	635	941	191	736	144	191	207
TOTAL(U.S.)	626	1925	1915	1022	1542	355	974	541	354	353
NERC-CANADA										
MAPP	0	0	0	0	0	0	0	0	0	0
NPCC	0	0	0	0	30	30	30	30	30	30
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	0	0	30	30	30	30	30	30
QUEBEC	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	0	0	0	0	30	30	30	30	30	30
NERC-MEXICO										
WSCC	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	626	1925	1915	1022	1572	385	1004	571	384	383

[a] Non-utility generation includes cogeneration and small power production facilities defined as qualifying facilities under the Public Utility Regulatory Policies Act (PURPA) of 1978 and any other non-utility generation not covered by PURPA but reported by the electric utilities. This non-utility capacity is planned to operate as electric generation connected to electric utility systems. Capacities shown for non-utility generation may include more than one unit.

TABLE 34
NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
GENERATING UNIT RETIREMENTS - SUMMER - MW
(April 1, 1986 - December 31, 1995)

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.										
ECAR	20	0	114	3	156	60	192	124	0	92
ERCOT	0	310	0	145	115	431	772	103	290	480
MAAC	458	0	12	2	455	94	126	169	2	0
MAIN	0	0	0	0	31	0	0	0	0	0
CMNWLTH EDISON	0	0	0	0	0	0	0	0	0	0
EAST MISSOURI	0	0	0	0	0	0	0	0	0	0
S CENT ILLINOIS	0	0	0	0	0	0	0	0	0	0
WIS-UPPER MICH	0	0	0	0	31	0	0	0	0	0
MAPP	14	194	14	0	0	8	130	0	0	5
NPCC	405	26	27	0	46	0	124	16	57	237
NEW YORK	0	0	0	0	46	0	0	0	0	0
NEW ENGLAND	405	26	27	0	0	0	124	16	57	237
SERC	0	0	45	54	255	185	72	90	14	166
FLORIDA	0	0	0	0	29	0	0	64	14	6
SOUTHERN	0	0	45	54	126	185	72	26	0	160
TVA	0	0	0	0	0	0	0	0	0	0
VACAR	0	0	0	0	100	0	0	0	0	0
SPP	25	24	0	35	255	372	30	629	332	405
SOUTHEAST	25	0	0	0	253	372	0	406	332	115
WEST CENTRAL	0	4	0	0	2	0	0	223	0	290
NORTHERN	0	20	0	35	0	0	30	0	0	0
WSCC	104	357	437	306	53	250	405	840	0	0
NW POOL	0	0	0	0	0	11	11	840	0	0
ROCKY MT-AREA	17	0	0	0	8	8	0	0	0	0
ARIZ-N.MEX	0	0	87	0	0	0	0	0	0	0
CALIF-SO.NEV	87	357	350	306	45	231	394	0	0	0
TOTAL(U.S.)	1026	911	649	545	1366	1400	1851	1971	695	1385
NERC-CANADA										
MAPP	0	0	0	0	0	0	62	0	0	0
NPCC	0	0	0	0	0	0	0	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	44	107	0	0	0	0	0
TOTAL(CANADA)	0	0	0	44	107	0	62	0	0	0
NERC-MEXICO										
WSCC	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	1026	911	649	589	1473	1400	1913	1971	695	1385

TRANSMISSION

The planned high voltage (230 kV and above) transmission line additions in NERC over the 1986-1995 period are estimated to total about 23,500 circuit miles. Figure 11 compares this current 1986 transmission forecast to the 1985 and 1984 10-year forecasts. As in the last two forecasts, most of the transmission lines projected to be built in the next 10 years will be 345 kV in NERC-U.S. and 230 kV in NERC-CANADA. In NERC-MEXICO, only 230 kV transmission lines are planned over the 1986-1995 forecast period.

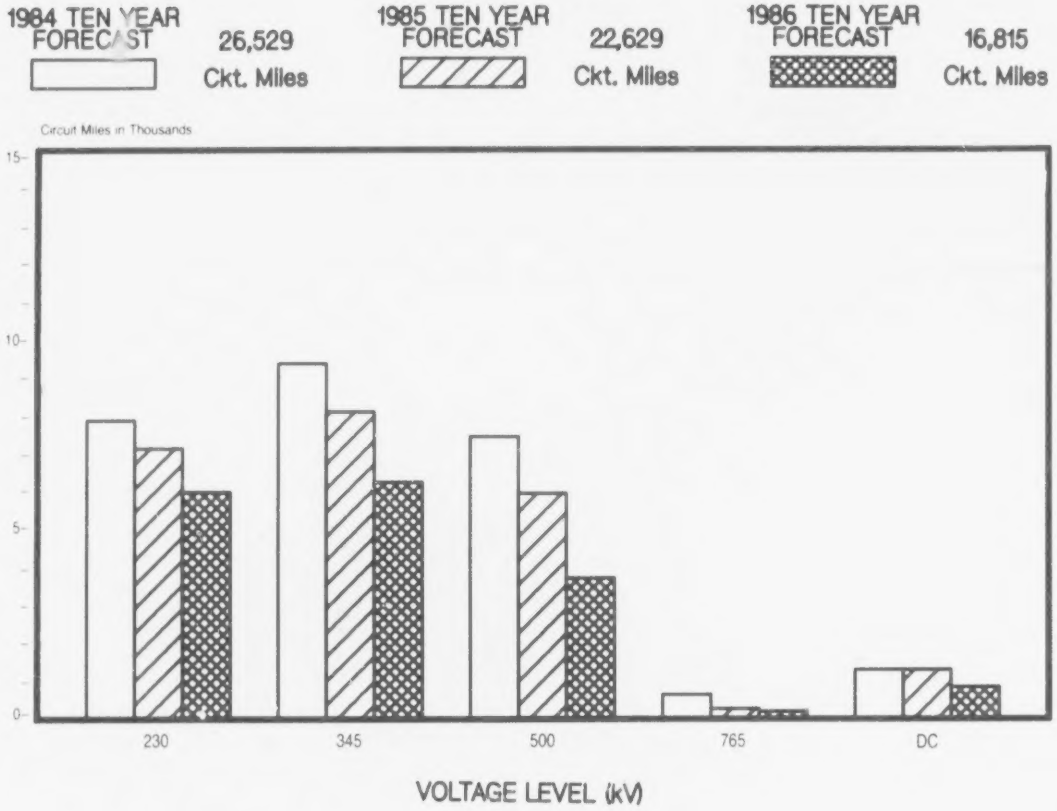
As of December 31, 1985, the transmission networks in NERC, as shown in Table 35, were comprised of over 180,000 circuit miles of high voltage (230 kV and above) lines. The planned transmission additions by voltage for the NERC regions and subregions over the next two 5-year periods (1986-1990 and 1991-1995) are shown in Tables 36 and 37, respectively.

By the end of December 1995, the total NERC high voltage (230 kV and above) transmission system will approach 203,700 circuit miles. A breakdown of the 1995 system by voltage class and by NERC regions and subregions is shown in Table 38. Finally, Table 39 summarizes the NERC existing transmission and planned transmission additions over the 1985 to 1995 period.

The transmission data as included in Figure 11 and Tables 35 through 39 were reported directly to NERC.

Figure 11
PLANNED TRANSMISSION ADDITIONS

NERC (U.S.)



NERC (CANADA)

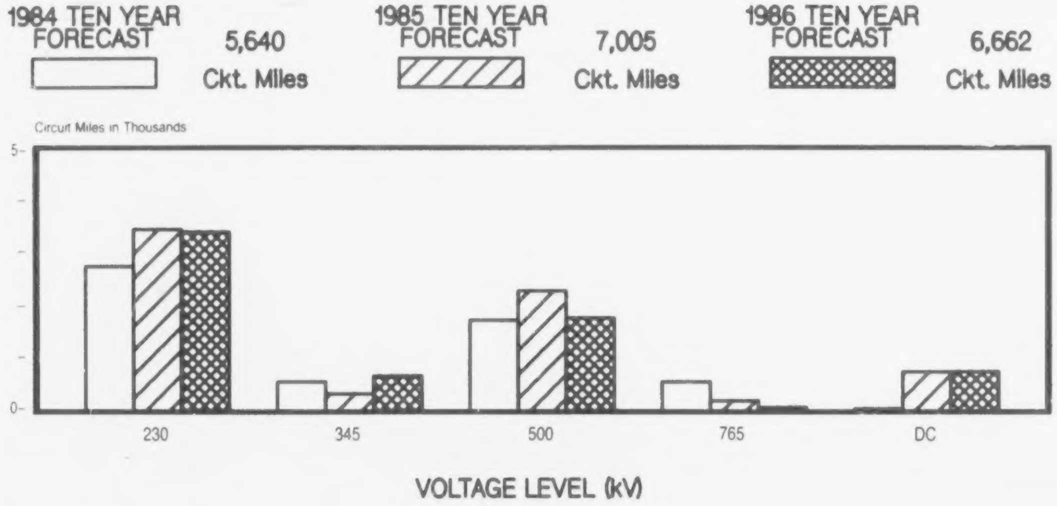


TABLE 35

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
EXISTING TRANSMISSION (230-kV & Above) SYSTEM - Circuit Miles
(12/31/85)

	AC VOLTAGE (kV)					DC VOLTAGE (kV)					AC & DC
	230	345	500	765	Subtotal	±250-300	±400	±450	±500	Subtotal	Total
NERC-U.S.											
ECAR	1083	11747	847	1923	15600	0	0	0	0	0	15600
ERCOT	0	6371	0	0	6371	0	0	0	0	0	6371
MAAC	4640	170	1630	0	6440	0	0	0	0	0	6440
MAIN	262	5051	0	90	5403	0	0	0	0	0	5403
CMNWLTH EDISON	0	2335	0	90	2425	0	0	0	0	0	2425
EAST MISSOURI	90	975	0	0	1065	0	0	0	0	0	1065
S CENT ILLINOIS	49	789	0	0	838	0	0	0	0	0	838
WIS-UPPER MICH	123	952	0	0	1075	0	0	0	0	0	1075
MAPP	7058	5009	642	0	12709	465	436	0	0	901	13610
NPCC	1534	4023	5	252	5814	0	0	0	0	0	5814
NEW YORK	1090	2340	5	252	3687	0	0	0	0	0	3687
NEW ENGLAND	444	1683	0	0	2127	0	0	0	0	0	2127
SERC	19230	2	6673	0	25905	0	0	0	0	0	25905
FLORIDA	4345	0	1145	0	5490	0	0	0	0	0	5490
SOUTHERN	6359	0	1433	0	7792	0	0	0	0	0	7792
TVA	30	2	2256	0	2288	0	0	0	0	0	2288
VACAR	8496	0	1839	0	10335	0	0	0	0	0	10335
SPP	3978	4450	2079	0	10507	0	0	0	0	0	10507
SOUTHEAST	1978	98	1977	0	4053	0	0	0	0	0	4053
WEST CENTRAL	1288	2187	47	0	3522	0	0	0	0	0	3522
NORTHERN	712	2165	55	0	2932	0	0	0	0	0	2932
WSCC	30463	8569[a]	10676	0	49708	0	0	0	1333	1333	51041
NW POOL	12493	3906	5570	0	21969	0	0	0	264	264	22233
ROCKY MT-AREA	3829	541	0	0	4370	0	0	0	0	0	4370
ARIZ-N.MEX	2152	3676[a]	1581	0	7409	0	0	0	0	0	7409
CALIF-SO.NEV	11989	446[a]	3525	0	15960	0	0	0	1069	1069	17029
TOTAL(U.S.)	68248	45392	22552	2265	138457	465	436	0	1333	2234	140691
NERC-CANADA											
MAPP	4113	924	130	0	5167	0	0	1139	0	1139	6306
NPCC	11685	4710	1381	6315	24091	0	0	0	0	0	24091
NEW BRUNSWICK	328	601	0	0	929	0	0	0	0	0	929
NOVA SCOTIA	715	107	0	0	822	0	0	0	0	0	822
ONTARIO	8273	4	1381	0	9658	0	0	0	0	0	9658
QUEBEC	2369	3998[b]	0	6315[c]	12682	0	0	0	0	0	12682
WSCC	4787	264[a]	3399	0	8450	47	0	0	0	47	8497
TOTAL(CANADA)	20585	5898	4910	6315	37708	47	0	1139	0	1186	38894
NERC-MEXICO											
WSCC	626	0	0	0	626	0	0	0	0	0	626
TOTAL(MEXICO)	626	0	0	0	626	0	0	0	0	0	626
NERC-TOTAL	89459	51290	27462	8580	176791	512	436	1139	1333	3420	180211

a) Includes 287 kV and 360 kV lines where appropriate.
b) Includes 315 kV lines.
c) Includes 735 kV lines.

TABLE 36

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
PLANNED TRANSMISSION SYSTEM ADDITIONS BY VOLTAGE (230-kV & Above)-Circuit Miles
(1986-1990)

	AC VOLTAGE (kV)					DC VOLTAGE (kV)					AC & DC
	230	345	500	765	Subtotal	±250-300	±400	±450	±500	Subtotal	Total
NERC-U.S.											
ECAR	47	141	0	97	285	0	0	0	0	0	285
ERCOT	0	997	0	0	997	0	155	0	0	155	1152
MAAC	216	0	25	0	241	0	0	0	0	0	241
MAIN	0	198	0	0	198	0	0	0	0	0	198
CMNWLTH EDISON	0	129	0	0	129	0	0	0	0	0	129
EAST MISSOURI	0	9	0	0	9	0	0	0	0	0	9
S CENT ILLINOIS	0	59	0	0	59	0	0	0	0	0	59
WIS-UPPER MICH	0	1	0	0	1	0	0	0	0	0	1
MAPP	199	180	0	0	379	0	0	0	0	0	379
NPCC	0	504	0	64	568	0	0	192	0	192	760
NEW YORK	0	307	0	64	371	0	0	0	0	0	371
NEW ENGLAND	0	197	0	0	197	0	0	192	0	192	389
SERC	1205	0	757	0	1962	0	0	0	0	0	1962
FLORIDA	236	0	98	0	334	0	0	0	0	0	334
SOUTHERN	424	0	392	0	816	0	0	0	0	0	816
TVA	0	0	141	0	141	0	0	0	0	0	141
VACAR	545	0	126	0	671	0	0	0	0	0	671
SPP	776	298	179	0	1253	0	0	0	0	0	1253
SOUTHEAST	553	0	179	0	732	0	0	0	0	0	732
WEST CENTRAL	173	101	0	0	274	0	0	0	0	0	274
NORTHERN	50	197	0	0	247	0	0	0	0	0	247
WSCC	1573	1581[a]	709	0	3863	0	0	0	0	0	3863
NW POOL	254	305	239	0	798	0	0	0	0	0	798
ROCKY MT-AREA	404	559	0	0	963	0	0	0	0	0	963
ARIZ-N.MEX	483	649[a]	45	0	1177	0	0	0	0	0	1177
CALIF-SO.NEV	432	68[a]	425	0	925	0	0	0	0	0	925
TOTAL(U.S.)	4016	3899	1670	161	9746	0	155	192	0	347	10093
NERC-CANADA											
MAPP	658	0	0	0	658	0	0	0	0	0	658
NPCC	212	381	347	72	1012	0	0	748	0	748	1760
NEW BRUNSWICK	0	152	0	0	152	0	0	0	0	0	152
NOVA SCOTIA	72	200	0	0	272	0	0	0	0	0	272
ONTARIO	131	0	347	0	478	0	0	0	0	0	478
QUEBEC	9	29[b]	0	72[c]	110	0	0	748	0	748	858
WSCC	1271	0	247	0	1518	0	0	0	0	0	1518
TOTAL(CANADA)	2141	381	594	72	3188	0	0	748	0	748	3936
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	6157	4280	2264	233	12934	0	155	940	0	1095	14029

a) Includes 287 kV and 360 kV lines where appropriate.
b) Includes 315 kV lines.
c) Includes 735 kV lines.

TABLE 37

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
PLANNED TRANSMISSION SYSTEM ADDITIONS BY VOLTAGE (230-kV & Above)-Circuit Miles
(1991-1995)

	AC VOLTAGE (kV)					DC VOLTAGE (kV)					AC & DC
	230	345	500	765	Subtotal	±250-300	±400	±450	±500	Subtotal	Total
NERC-U.S.											
ECAR	10	412	126	0	548	0	0	0	0	0	548
ERCOT	0	546	0	0	546	0	0	0	0	0	546
MAAC	78	0	86	0	164	0	0	0	0	0	164
MAIN	0	83	0	0	83	0	0	0	0	0	83
CMNWLTH EDISON	0	0	0	0	0	0	0	0	0	0	0
EAST MISSOURI	0	0	0	0	0	0	0	0	0	0	0
S CENT ILLINOIS	0	83	0	0	83	0	0	0	0	0	83
WIS-UPPER MICH	0	0	0	0	0	0	0	0	0	0	0
MAPP	206	363	225	0	794	0	0	0	0	0	794
NPCC	0	115	0	0	115	0	0	0	0	0	115
NEW YORK	0	74	0	0	74	0	0	0	0	0	74
NEW ENGLAND	0	41	0	0	41	0	0	0	0	0	41
SERC	684	0	132	0	816	0	0	0	0	0	816
FLORIDA	82	0	0	0	82	0	0	0	0	0	82
SOUTHERN	304	0	55	0	359	0	0	0	0	0	359
TVA	0	0	36	0	36	0	0	0	0	0	36
VACAR	298	0	41	0	339	0	0	0	0	0	339
SPP	462	252	183	0	897	0	0	0	0	0	897
SOUTHEAST	372	0	183	0	555	0	0	0	0	0	555
WEST CENTRAL	90	9	0	0	99	0	0	0	0	0	99
NORTHERN	0	243	0	0	243	0	0	0	0	0	243
WSCC	499	549[a]	1256	0	2304	0	0	0	455	455	2759
NW POOL	514	19	42	0	575	0	0	0	0	0	575
ROCKY MT-AREA	-115	390	0	0	275	0	0	0	0	0	275
ARIZ-N.MEX	110	140[a]	174	0	424	0	0	0	240	240	664
CALIF-SO.NEV	-10	0	1040	0	1030	0	0	0	215	215	1245
TOTAL(U.S.)	1939	2320	2008	0	6267	0	0	0	455	455	6722
NERC-CANADA											
MAPP	519	0	0	0	519	0	0	0	0	0	519
NPCC	464	209	648	0	1321	0	0	0	0	0	1321
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	80	0	0	80	0	0	0	0	0	80
ONTARIO	464	0	648	0	1112	0	0	0	0	0	1112
QUEBEC	0	129[b]	0	0	129	0	0	0	0	0	129
WSCC	281	79[a]	526	0	886	0	0	0	0	0	886
TOTAL(CANADA)	1264	288	1174	0	2726	0	0	0	0	0	2726
NERC-MEXICO											
WSCC	31	0	0	0	31	0	0	0	0	0	31
TOTAL(MEXICO)	31	0	0	0	31	0	0	0	0	0	31
NERC-TOTAL	3234	2608	3182	0	9024	0	0	0	455	455	9479

a) Includes 287 kV and 360 kV lines where appropriate.
b) Includes 315 kV lines.

TABLE 38
NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
PLANNED TRANSMISSION (230-kV & Above) SYSTEM-Circuit Miles
(12/31/95)

	AC VOLTAGE (kV)					DC VOLTAGE (kV)					AC & DC
	230	345	500	765	Subtotal	±250-300	±400	±450	±500	Subtotal	Total
NERC-U.S.											
ECAR	1140	12300	973	2020	16433	0	0	0	0	0	16433
ERCOT	0	7914	0	0	7914	0	155	0	0	155	8069
MAAC	4934	170	1741	0	6845	0	0	0	0	0	6845
MAIN	262	5332	0	90	5684	0	0	0	0	0	5684
CMNWLTH EDISON	0	2464	0	90	2554	0	0	0	0	0	2554
EAST MISSOURI	90	984	0	0	1074	0	0	0	0	0	1074
S CENT ILLINOIS	49	931	0	0	980	0	0	0	0	0	980
WIS-UPPER MICH	123	953	0	0	1076	0	0	0	0	0	1076
MAPP	7463	5552	867	0	13882	465	436	0	0	901	14783
NPCC	1534	4642	5	316	6497	0	0	192	0	192	6689
NEW YORK	1090	2721	5	316	4132	0	0	0	0	0	4132
NEW ENGLAND	444	1921	0	0	2365	0	0	192	0	192	2557
SERC	21119	2	7562	0	28683	0	0	0	0	0	28693
FLORIDA	4663	0	1243	0	5906	0	0	0	0	0	5906
SOUTHERN	7087	0	1880	0	8967	0	0	0	0	0	8967
TVA	30	2	2433	0	2465	0	0	0	0	0	2465
VACAR	9339	0	2006	0	11345	0	0	0	0	0	11345
SPP	5216	5000	2441	0	12657	0	0	0	0	0	12657
SOUTHEAST	2903	98	2339	0	5340	0	0	0	0	0	5340
WEST CENTRAL	1551	2297	47	0	3895	0	0	0	0	0	3895
NORTHERN	762	2605	55	0	3422	0	0	0	0	0	3422
WSCC	32535	10699[a]	12641	0	55875	0	0	0	1788	1788	57663
NW POOL	13261	4230	5851	0	23342	0	0	0	264	264	23606
ROCKY MT-AREA	4118	1490	0	0	5608	0	0	0	0	0	5608
ARIZ-N.MEX	2745	4465[a]	1800	0	9010	0	0	0	240	240	9250
CALIF-SO.NEV	12411	514[a]	4990	0	17915	0	0	0	1284	1284	19199
TOTAL(U.S.)	74203	51611	26230	2426	154470	465	591	192	1788	3036	157506
NERC-CANADA											
MAPP	5290	924	130	0	6344	0	0	1139	0	1139	7483
NPCC	12361	5300	2376	6387	26424	0	0	748	0	748	27172
NEW BRUNSWICK	328	753	0	0	1081	0	0	0	0	0	1081
NOVA SCOTIA	787	387	0	0	1174	0	0	0	0	0	1174
ONTARIO	8868	4	2376	0	11248	0	0	0	0	0	11248
QUEBEC	2378	4156[b]	0	6387[c]	12921	0	0	748	0	748	13669
WSCC	6339	343[a]	4172	0	10854	47	0	0	0	47	10901
TOTAL(CANADA)	23990	6567	6678	6387	43622	47	0	1887	0	1934	45556
NERC-MEXICO											
WSCC	657	0	0	0	657	0	0	0	0	0	657
TOTAL(MEXICO)	657	0	0	0	657	0	0	0	0	0	657
NERC-TOTAL	98850	58178	32908	8813	198749	512	591	2079	1788	4970	203719

a) Includes 287 kV and 360 kV lines where appropriate.
b) Includes 315 kV lines.
c) Includes 735 kV lines.

TABLE 39

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
EXISTING AND PLANNED TRANSMISSION (230-kV & Above) SYSTEM-Circuit Miles
(1985-1995)

	EXISTING 12/31/85	ADDITIONS 1986-90	TOTAL 12/31/90	ADDITIONS 1991-95	TOTAL 12/31/95
NERC-U.S.					
ECAR	15600	285	15885	548	16433
ERCOT	6371	1152	7523	546	8069
MAAC	6440	241	6681	164	6845
MAIN	5403	198	5601	83	5684
CMNWLTH EDISON	2425	129	2554	0	2554
EAST MISSOURI	1065	9	1074	0	1074
S CENT ILLINOIS	838	59	897	83	980
WIS-UPPER MICH	1075	1	1076	0	1076
MAPP	13610	379	13989	794	14783
NPCC	5814	760	6574	115	6689
NEW YORK	3687	371	4058	74	4132
NEW ENGLAND	2127	389	2516	41	2557
SERC	25905	1962	27867	816	28683
FLORIDA	5490	334	5824	82	5906
SOUTHERN	7792	816	8608	359	8967
TVA	2286	141	2429	36	2465
VACAR	10335	671	11006	339	11345
SPP	10507	1253	11760	897	12657
SOUTHEAST	4053	732	4785	555	5340
WEST CENTRAL	3522	274	3796	99	3895
NORTHERN	2932	247	3179	243	3422
WSCC	51041	3863	54904	2759	57663
NW POOL	22233	798	23031	575	23606
ROCKY MT-AREA	4370	963	5333	275	5608
ARIZ-N.MEX	7409	1177	8586	664	9250
CALIF-SO.NEV	17029	925	17954	1245	19199
TOTAL(U.S.)	140691	10093	150784	6722	157506
NERC-CANADA					
MAPP	6306	658	6964	519	7483
NPCC	24091	1760	25851	1321	27172
NEW BRUNSWICK	929	152	1081	0	1081
NOVA SCOTIA	822	272	1094	80	1174
ONTARIO	9658	478	10136	1112	11248
QUEBEC	12682	858	13540	129	13669
WSCC	8497	1518	10015	886	10901
TOTAL(CANADA)	38894	3936	42830	2726	45556
NERC-MEXICO					
WSCC	626	0	626	31	657
TOTAL(MEXICO)	626	0	626	31	657
NERC-TOTAL	180211	14029	194240	9479	203719

APPENDICES

A. INSTALLED GENERATING CAPACITY

B. ELECTRIC ENERGY PRODUCTION

C. FOSSIL FUEL REQUIREMENTS FOR COAL, OIL, & NATURAL GAS

D. GENERATING UNIT ADDITIONS

E. NUCLEAR GENERATING UNIT ADDITIONS

F. COAL-FIRED GENERATING UNIT ADDITIONS

G. NON-UTILITY GENERATING UNIT ADDITIONS

H. JOINTLY-OWNED GENERATING UNIT ADDITIONS

I. GENERATING UNIT RETIREMENTS

APPENDIX A

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED COAL-FIRED GENERATING CAPACITY - SUMMER - MW

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S											
ECAR	78770	80329	80502	80730	81603	81418	82875	82921	83793	83816	84254
ERCOT	11156	11876	13070	13526	13558	13558	14308	16100	17348	19343	21842
MAAC	12692	12726	12726	12726	12725	12725	12725	13365	13365	13364	13664
MAIN	27452	27108	27108	27071	27230	27179	27261	27375	27489	27581	27603
CMNWLTH EDISON	6940	6940	6940	6940	6940	6940	6940	6940	6940	6940	6940
EAST MISSOURI	5596	5596	5596	5596	5596	5596	5596	5596	5596	5596	5596
S CENT ILLINOIS	7762	7630	7630	7630	7630	7630	7630	7630	7630	7630	7592
WIS-UPPER MICH	7154	6942	6942	6905	7064	7013	7095	7209	7323	7415	7475
MAPP	18486	18532	18802	19638	19638	19871	19863	19864	19739	19739	20186
NPCC	6743	6791	7021	7553	7553	7553	7553	7553	7553	7616	7616
NEW YORK	4018	4018	4248	4780	4780	4780	4780	4780	4780	4843	4843
NEW ENGLAND	2725	2773	2773	2773	2773	2773	2773	2773	2773	2773	2773
SERC	65205	65173	66710	67126	69150	69089	70530	70530	70530	70530	70444
FLORIDA	6554	6554	7104	7520	8070	8070	8070	8070	8070	8070	8120
SOUTHERN	22316	22401	23142	23142	24616	24555	25221	25221	25221	25221	25085
TVA	16101	16101	16101	16101	16101	16101	16101	16101	16101	16101	16101
VACAR	20234	20117	20363	20363	20363	20363	21138	21138	21138	21138	21136
SPP	24761	25746	25692	25689	25689	25696	25696	25771	26401	26511	27980
SOUTHEAST	5766	6086	6032	6029	6029	6029	6029	6029	6029	6029	6829
WEST CENTRAL	8755	9402	9402	9402	9402	9402	9402	9402	9402	9402	10031
NORTHERN	10240	10258	10258	10258	10258	10265	10265	10340	10970	11080	11120
WSCC[a]	26685	28658	29606	29517	29268	29871	30326	30326	30610	31748	31818
NW POOL	9997	11096	11122	11117	11117	11112	11112	11112	11142	11172	11172
ROCKY MT-AREA	5701	5701	5699	5704	5704	5720	5830	5830	5830	6640	6640
ARIZ-N.MEX	6217	6414	6971	7041	7351	7991	8341	8341	8341	8341	8411
CALIF-SO.NEV	4770	5442	5814	5650	5096	5043	5043	5043	5297	5595	5595
TOTAL(U.S.)	271950	276939	281237	283576	286414	286960	291137	293805	296828	300248	305407
NERC-CANADA											
MAPP	1944	1944	1944	1944	1944	1944	2216	2154	2154	2426	2426
NPCC	11117	11332	11332	11485	11485	11485	11785	11785	11785	11785	11785
NEW BRUNSWICK	284	284	284	284	284	284	284	284	284	284	284
NOVA SCOTIA	880	880	880	1033	1033	1033	1333	1333	1333	1333	1333
ONTARIO	9953	10168	10168	10168	10168	10168	10168	10168	10168	10168	10168
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	4158	4524	4524	4524	4524	4910	5276	5662	5662	6022	6022
TOTAL(CANADA)	17219	17800	17800	17953	17953	18339	19277	19601	19601	20233	20233
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	289169	294739	299037	301529	304367	305299	310414	313406	316429	320481	325640

a) Because of subregional peak demand diversities, the sum of the subregional capacities at the time of their respective peak demands may not equal the WSCC(U.S.) capacity total

APPENDIX A
NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED NUCLEAR GENERATING CAPACITY - SUMMER - MW

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	4600	5693	6898	7700	7740	7740	7740	7740	7740	7740	7740
ERCOT	0	0	1150	3550	4800	4800	4800	4800	4800	4800	4800
MAAC	9417	10472	11539	11539	11539	11539	12594	12594	12594	12594	12594
MAIN	9931	11040	14200	14241	15331	15331	15331	15331	15331	15331	15331
CMNWLTH EDISON	6874	7994	10204	10204	11294	11294	11294	11294	11294	11294	11294
EAST MISSOURI	1120	1109	1109	1150	1150	1150	1150	1150	1150	1150	1150
S CENT ILLINOIS	443	443	1393	1393	1393	1393	1393	1393	1393	1393	1393
WIS-UPPER MICH	1494	1494	1494	1494	1494	1494	1494	1494	1494	1494	1494
MAPP	3718	3721	3721	3721	3721	3721	3721	3721	3721	3721	3721
NPCC	7912	9073	12112	12112	12112	12112	12112	12112	12112	12112	12112
NEW YORK	3694	3694	5583	5583	5583	5583	5583	5583	5583	5583	5583
NEW ENGLAND	4218	5379	6529	6529	6529	6529	6529	6529	6529	6529	6529
SERC	25100	25173	29538	30708	31888	31917	31917	31917	31917	33129	33129
FLORIDA	3778	3778	3778	3778	3778	3778	3778	3778	3778	3778	3778
SOUTHERN	3264	3337	4487	4487	5638	5638	5638	5638	5638	5638	5638
TVA	5491	5491	6661	7831	7831	7831	7831	7831	7831	9043	9043
VACAR	12567	12567	14612	14612	14641	14670	14670	14670	14670	14670	14670
SPP	3751	5795	5923	5923	5923	5923	5923	5923	5923	5923	5923
SOUTHEAST	2691	4735	4863	4863	4863	4863	4863	4863	4863	4863	4863
WEST CENTRAL	0	0	0	0	0	0	0	0	0	0	0
NORTHERN	1060	1060	1060	1060	1060	1060	1060	1060	1060	1060	1060
WSCC	6913	9726	10990	11880	11880	11880	11880	11880	11880	11880	11880
NW POOL	2180	2180	2180	2180	2180	2180	2180	2180	2180	2180	2180
ROCKY MT-AREA	200	275	275	275	275	275	275	275	275	275	275
ARIZ-N.MEX	3	1330	2264	2756	2756	2756	2756	2756	2756	2756	2756
CALIF-SO.NEV	4530	5941	6271	6669	6669	6669	6669	6669	6669	6669	6669
TOTAL(U.S.)	71342	80693	96071	101374	104934	104963	106018	106018	106018	107230	107230
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	9618	11029	11884	12765	13646	13646	13646	14527	15408	15408	15408
NEW BRUNSWICK	635	635	635	635	635	635	635	635	635	635	635
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	8296	9707	10562	11443	12324	12324	12324	13205	14086	14086	14086
QUEBEC	687	687	687	687	687	687	687	687	687	687	687
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	9618	11029	11884	12765	13646	13646	13646	14527	15408	15408	15408
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	80960	91722	107955	114139	118580	118609	9664	120545	121426	122638	122638

APPENDIX A

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED HYDRO[a] GENERATING CAPACITY - SUMMER - MW

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAP	610	610	610	610	610	610	610	610	610	610	610
ERCOT	247	247	250	250	250	250	250	250	250	250	250
MAAC	929	992	992	994	994	994	994	994	994	994	994
MAIN	575[b]	573	574	580	580	580	581	582	583	584	586
CMNWLTH EDISON	0	0	0	0	0	0	0	0	0	0	0
EAST MISSOURI	331	331	331	331	331	331	331	331	331	331	331
S CENT ILLINOIS	2	2	2	2	2	2	2	2	2	2	2
WIS-UPPER MICH	242[b]	240	241	247	247	247	248	249	250	251	253
MAPP	2986[b]	2980	2926	2788	2823	2823	2712	2718	2718	2718	2718
NPCC	5334[b]	5330	5338	5335	5337	5378	5379	5443	5445	5745	5785
NEW YORK	4012	4021	4026	4020	4022	4063	4064	4128	4130	4430	4470
NEW ENGLAND	1322[b]	1309	1312	1315	1315	1315	1315	1315	1315	1315	1315
SERC	10980	11236	11239	11240	11240	11240	11240	11310	11310	11310	11310
FLORIDA	36	43	43	43	43	43	43	43	43	43	43
SOUTHERN	3794	3860	3860	3860	3860	3860	3860	3930	3930	3930	3930
TVA	4657	4657	4657	4657	4657	4657	4657	4657	4657	4657	4657
VACAR	2493	2676	2679	2680	2680	2680	2680	2680	2680	2680	2680
SPP	2027	2442	2442	2442	2459	2575	2575	2575	2575	2575	2575
SOUTHEAST	70	70	70	70	87	87	87	87	87	87	87
WEST CENTRAL	1941	2356	2356	2356	2356	2472	2472	2472	2472	2472	2472
NORTHERN	16	16	16	16	16	16	16	16	16	16	16
WSCC[c]	46643[b]	42775	43049	43630	44230	44336	44346	44566	45043	45107	45122
NW POOL	33141[b]	31195	30786	31245	31295	31317	31317	31317	31358	31359	30871
ROCKY MT-AREA	2271	2333	2416	2438	2445	2476	2487	2487	2487	2487	2487
ARIZ-N.MEX	650	652	748	872	933	957	923	948	999	999	999
CALIF-SO.NEV	10581[b]	9163	9099	9527	9822	10075	10108	10303	10688	10750	10765
TOTAL(U.S.)	70331[b]	67185	67420	67869	68523	68786	68687	69048	69528	69893	69950
NERC-CANADA											
MAPP	4160	4412	4412	4412	4412	4412	5132	5492	5612	5612	5612
NPCC	28811	29438	29507	29581	30128	30677	30720	30729	31370	32391	33152
NEW BRUNSWICK	884	884	884	884	884	884	884	884	884	884	884
NOVA SCOTIA	379	379	379	379	379	379	379	379	379	379	379
ONTARIO	6134	6173	6173	6178	6178	6178	6178	6178	6178	6559	6688
QUEBEC	21414	22002	22071	22140	22687	23236	23279	23288	23929	24569	25201
WSCC	11128	11144	11144	11144	11144	11144	11144	11144	11144	11144	11144
TOTAL(CANADA)	44099	44994	45063	45137	45684	46233	46996	47365	48126	49147	49908
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	114430[b]	112179	112483	113006	114207	115019	115683	116413	117654	119040	119858

a) Conventional hydro. Adverse hydro conditions are generally assumed for forecast years by most systems.
b) Data for actual year can be greater than for forecast years if median or average hydro conditions occurred.
c) See Appendix A, page 1, footnote a.

APPENDIX A

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED PUMPED STORAGE GENERATING CAPACITY - SUMMER - MW

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	2760	3600	3600	3600	3600	3600	3600	3600	3600	3600	3600
ERCOT	0	0	0	0	0	0	0	0	0	0	0
MAAC	1280	1280	1280	1280	1280	1280	1280	1280	1280	1280	1280
MAIN	300	300	300	300	300	300	300	300	300	300	300
CMNWLTH EDISON	0	0	0	0	0	0	0	0	0	0	0
EAST MISSOURI	300	300	300	300	300	300	300	300	300	300	300
S CENT ILLINOIS	0	0	0	0	0	0	0	0	0	0	0
WIS-UPPER MICH	0	0	0	0	0	0	0	0	0	0	0
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	2613	2587	2587	2587	2587	2587	2587	2587	2587	2587	2587
NEW YORK	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
NEW ENGLAND	1613	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587
SERC	3152	4412	4412	4412	4412	4637	5212	5712	5712	5712	5712
FLORIDA	0	0	0	0	0	0	0	0	0	0	0
SOUTHERN	498	498	498	498	498	648	648	648	648	648	648
TVA	1532	1532	1532	1532	1532	1532	1532	1532	1532	1532	1532
VACAR	1122	2382	2382	2382	2382	2457	3032	3532	3532	3532	3532
SPP	260	260	260	260	260	260	260	260	260	260	260
SOUTHEAST	0	0	0	0	0	0	0	0	0	0	0
WEST CENTRAL	260	260	260	260	260	260	260	260	260	260	260
NORTHERN	0	0	0	0	0	0	0	0	0	0	0
WSCC	3701	3620	3624	3800	3746	3708	3724	3714	3814	3824	3798
NW POOL	0	0	0	0	0	0	0	0	0	0	0
ROCKY MT-AREA	256	256	256	358	358	358	358	358	358	358	358
ARIZ-N.MEX	137	137	137	137	137	137	137	137	137	137	137
CALIF-SO.NEV	3308	3227	3231	3305	3251	3213	3229	3219	3319	3329	3303
TOTAL(U.S.)	14066	16059	16063	16239	16185	16372	16963	17453	17553	17563	17537
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	0	0	0	0	0	0	0	0	0	0	0
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	14066	16059	16063	16239	16185	16372	16963	17453	17553	17563	17537

APPENDIX A
NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED GEOTHERMAL GENERATING CAPACITY - SUMMER - MW

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	0	0	0	0	0	0	0	0	0	0	0
ERCOT	0	0	0	0	0	0	0	0	0	0	0
MAAC	0	0	0	0	0	0	0	0	0	0	0
MAIN	0	0	0	0	0	0	0	0	0	0	0
CMNWLTH EDISON	0	0	0	0	0	0	0	0	0	0	0
EAST MISSOURI	0	0	0	0	0	0	0	0	0	0	0
S CENT ILLINOIS	0	0	0	0	0	0	0	0	0	0	0
WIS-UPPER MICH	0	0	0	0	0	0	0	0	0	0	0
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW YORK	0	0	0	0	0	0	0	0	0	0	0
NEW ENGLAND	0	0	0	0	0	0	0	0	0	0	0
SERC	0	0	0	0	0	0	0	0	0	0	0
FLORIDA	0	0	0	0	0	0	0	0	0	0	0
SOUTHERN	0	0	0	0	0	0	0	0	0	0	0
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	0	0	0	0	0	0	0	0	0	0	4
SPP	0	0	0	0	0	0	0	0	0	0	0
SOUTHEAST	0	0	0	0	0	0	0	0	0	0	0
WEST CENTRAL	0	0	0	0	0	0	0	0	0	0	0
NORTHERN	0	0	0	0	0	0	0	0	0	0	0
WSCC	1480	2019	2114	2291	2552	2666	2716	2845	2845	2859	3099
NW POOL	20	20	20	20	30	44	94	158	158	172	222
ROCKY MT-AREA	0	0	0	0	0	0	0	0	0	0	0
ARIZ-N MEX	1	0	0	5	5	5	5	5	5	5	5
CALIF-SO.NEV	1459	1999	2094	2266	2517	2617	2617	2682	2682	2682	2872
TOTAL(U.S.)	1480	2019	2114	2291	2552	2666	2716	2845	2845	2859	3099
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	0	0	0	0	0	0	0	0	0	0	0
NERC-MEXICO											
WSCC	173	473	573	573	573	573	573	623	673	673	673
TOTAL(MEXICO)	173	473	573	573	573	573	573	623	673	673	673
NERC-TOTAL	1653	2492	2687	2864	3125	3239	3289	3468	3518	3532	3772

APPENDIX A

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED OIL-AND GAS-FIRED GENERATING CAPACITY[a] - SUMMER - MW

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	6220	6220	6120	6120	6570	6730	6930	6930	7090	7250	7250
ERCOT	32426	31291	31702	31892	31747	32402	31971	31679	31751	31861	31419
MAAC[b]	22560	21763	21763	21763	21755	21754	21300	21440	21440	21275	21335
MAIN	6307	6310	6310	6310	6310	6268	6268	6268	6268	6268	6268
CMNWLTH EDISON	3738	3738	3738	3738	3738	3738	3738	3738	3738	3738	3738
EAST MISSOURI	860	861	861	861	861	861	861	861	861	861	861
S CENT ILLINOIS	821	821	821	821	821	821	821	821	821	821	821
WIS-UPPER MICH	888	890	890	890	890	848	848	848	848	848	848
MAPP	3423	3445	3458	3264	3264	3314	3417	3411	3433	3513	3508
NPCC	28537	28300	27427	26904	26904	26858	26923	26923	26821	26743	26686
NEW YORK	18131	17990	17619	17100	17100	17054	17054	17054	17054	16991	16991
NEW ENGLAND	10406	10310	9808	9804	9804	9804	9869	9869	9767	9752	9695
SERC	26920	26911	26709	26685	26917	27065	27029	27130	27327	27363	28268
FLORIDA	17636	17636	17636	17657	17893	17991	18140	18264	18178	18164	19093
SOUTHERN	2563	2563	2563	2518	2514	2502	2317	2294	2268	2318	2294
TVA	2066	2066	2066	2066	2066	2066	2066	2066	2066	2066	2066
VACAR	4655	4646	4444	4444	4444	4506	4506	4506	4815	4815	4815
SPP	31373	30905	30977	31048	31048	31471	31671	31728	31927	32205	32184
SOUTHEAST	17413	17054	17029	17029	17029	17290	17068	16696	16807	16445	16391
WEST CENTRAL	10333	10378	10495	10491	10491	10661	10959	11337	11278	11843	11876
NORTHERN	3627	3473	3453	3528	3528	3520	3644	3695	3842	3917	3917
WSCC[c]	32867	32326	32220	31802	31716	31494	31244	30668	30521	30520	30509
NW POOL	2165	2254	2165	2324	2324	2324	2313	2302	2302	2302	2213
ROCKY MT-AREA	952	935	935	935	935	927	919	919	919	919	919
ARIZ-N.MEX	5215	4936	4936	4849	4745	4745	4745	4745	4745	4853	4853
CALIF-SO.NEV	24535	24290	24184	23783	23801	23587	23356	22791	22644	22535	22524
TOTAL(U.S.)	190633	187471	186686	185788	186231	187356	186753	186177	186578	186998	187427
NERC-CANADA											
MAPP	275	275	425	625	725	725	725	725	725	725	725
NPCC	6136	6091	6091	6039	6039	6039	6039	6039	6039	6039	6039
NEW BRUNSWICK	1391	1391	1391	1391	1391	1391	1391	1391	1391	1391	1391
NOVA SCOTIA	539	539	539	539	539	539	539	539	539	539	539
ONTARIO	3141	3096	3096	3044	3044	3044	3044	3044	3044	3044	3044
QUEBEC	1065	1065	1065	1065	1065	1065	1065	1065	1065	1065	1065
WSCC	2243	2272	2272	2272	2272	2225	2117	2117	2117	2117	2117
TOTAL(CANADA)	8654	8638	8788	8936	9036	8989	8881	8881	8881	8881	8881
NERC-MEXICO											
WSCC	455	455	455	500	645	645	645	645	790	790	790
TOTAL(MEXICO)	455	455	455	500	645	645	645	645	790	790	790
NERC-TOTAL	199742	196564	195929	195224	195912	196990	196279	195703	196249	196669	197098

a) Includes oil-, gas- and dual fueled(oil/gas)-fired steam, combustion turbine(and diesel) and combined cycle units.

b) Includes 7,921 MW of dual fueled(coal/oil, coal/natural gas, and oil/natural gas) steam capacity and 2,282 MW of dual fueled (oil/natural gas and kerosene/natural gas) combustion turbine(and diesel) capacity over the 1985-1995 period. Several of these facilities would require the issuance of various permits and would incur some time delay for conversion from one fuel to the other.

c) See Appendix A, page 1, footnote a.

APPENDIX A

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED OIL-FIRED GENERATING CAPACITY[a] - SUMMER - MW

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S											
ECAR	4970	4970	4970	4970	5420	5580	5780	5780	5940	6100	6100
ERCOT	41	41	41	41	41	41	41	41	41	41	41
MAAC	11941	11144	11144	11144	11136	11135	10681	10521	10521	10356	10416
MAIN	4530	4521	4521	4521	4521	4521	4521	4521	4521	4521	4521
CMNWLTH EDISON	3136	3136	3136	3136	3136	3136	3136	3136	3136	3136	3136
EAST MISSOURI	558	558	558	558	558	558	558	558	558	558	558
S CENT ILLINOIS	481	481	481	481	481	481	481	481	481	481	481
WIS-UPPER MICH	355	346	346	346	346	346	346	346	346	346	346
MAPP	2485	2460	2468	2369	2454	2504	2607	2607	2629	2709	2726
NPCC	17804	17589	16716	16592	16592	16592	16657	16657	16555	16556	16499
NEW YORK	9622	9481	9110	8990	8990	8990	8990	8990	8990	8990	8990
NEW ENGLAND	8182	8108	7606	7602	7602	7602	7667	7667	7565	7566	7509
SERC	14791	13224	13022	12977	13203	13345	13309	13314	13597	13647	13698
FLORIDA	9412	7846	7846	7846	8022	8128	8147	8175	8175	8125	8250
SOUTHERN	1389	1389	1389	1344	1394	1444	1389	1366	1340	1390	1366
TVA	1464	1464	1464	1464	1464	1464	1464	1464	1464	1464	1464
VACAR	2526	2525	2323	2323	2323	2309	2309	2309	2618	2618	2618
SPP	1448	1444	1444	1260	1260	1260	1258	1258	1278	1188	1288
SOUTHEAST	222	221	221	221	221	221	221	221	221	221	321
WEST CENTRAL	117	117	117	113	113	113	111	111	111	21	21
NORTHERN	1109	1106	1106	926	926	926	926	926	946	946	946
WSCC[b]	1811	1496	1496	1496	1496	1496	1485	1474	1474	1474	1474
NW POOL	353	361	353	361	361	361	350	339	339	339	331
ROCKY MT-AREA	411	411	411	411	411	411	411	411	411	411	411
ARIZ-N.MEX	141	141	141	141	141	141	141	141	141	141	141
CALIF-SO.NEV	906	591	591	591	591	591	591	591	591	591	591
TOTAL(U.S.)	59821	56889	55822	55370	56123	56474	56339	56173	56556	56592	56763
NERC-CANADA											
MAPP	22	22	22	22	22	22	22	22	22	22	22
NPCC	5548	5503	5503	5451	5451	5451	5451	5451	5451	5451	5451
NEW BRUNSWICK	1391	1391	1391	1391	1391	1391	1391	1391	1391	1391	1391
NOVA SCOTIA	539	539	539	539	539	539	539	539	539	539	539
ONTARIO	2553	2508	2508	2456	2456	2456	2456	2456	2456	2456	2456
QUEBEC	1065	1065	1065	1065	1065	1065	1065	1065	1065	1065	1065
WSCC	97	97	97	97	97	97	94	94	94	94	94
TOTAL(CANADA)	5667	5622	5622	5570	5570	5570	5567	5567	5567	5567	5567
NERC-MEXICO											
WSCC	455	455	455	500	645	645	645	645	790	790	790
TOTAL(MEXICO)	455	455	455	500	645	645	645	645	790	790	790
NERC-TOTAL	65943	62966	61899	61440	62338	62689	62551	62385	62913	62949	63120

a) Includes oil-fired steam, combustion turbine(and diesel) and combined cycle units.
b) See Appendix A, page 1, footnote a.

APPENDIX A

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED OIL-STEAM GENERATING CAPACITY - SUMMER - MW

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	2790	2790	2790	2790	3240	3400	3600	3600	3600	3600	3600
ERCOT	0	0	0	0	0	0	0	0	0	0	0
MAAC	6886	6550	6550	6550	6538	6538	6087	5921	5921	5755	5755
MAIN	3334	3334	3334	3334	3334	3334	3334	3334	3334	3334	3334
CMNWLTH EDISON	2698	2698	2698	2698	2698	2698	2698	2698	2698	2698	2698
EAST MISSOURI	196	196	196	196	196	196	196	196	196	196	196
S CENT ILLINOIS	434	434	434	434	434	434	434	434	434	434	434
WIS-UPPER MICH	6	6	6	6	6	6	6	6	6	6	6
MAPP	218	107	109	109	109	109	212	212	184	184	184
NPCC	14945	14747	13976	13856	13856	13856	13856	13856	13754	13755	13755
NEW YORK	7840	7699	7328	7208	7208	7208	7208	7208	7208	7208	7208
NEW ENGLAND	7105	7048	6648	6648	6648	6648	6648	6648	6546	6547	6547
SERC	8467	6901	6699	6699	6699	6677	6653	6612	6586	6586	6562
FLORIDA	7016	5450	5450	5450	5450	5428	5428	5428	5428	5428	5428
SOUTHERN	228	228	228	228	228	228	204	163	137	137	113
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	1223	1223	1021	1021	1021	1021	1021	1021	1021	1021	1021
SPP	50	50	50	50	50	50	50	50	50	0	0
SOUTHEAST	0	0	0	0	0	0	0	0	0	0	0
WEST CENTRAL	50	50	50	50	50	50	50	50	50	0	0
NORTHERN	0	0	0	0	0	0	0	0	0	0	0
WSCC	427	112	112	112	112	112	112	112	112	112	112
NW POOL	112	112	112	112	112	112	112	112	112	112	112
ROCKY MT-AREA	0	0	0	0	0	0	0	0	0	0	0
ARIZ-N.MEX	0	0	0	0	0	0	0	0	0	0	0
CALIF-SO.NEV	315	0	0	0	0	0	0	0	0	0	0
TOTAL(U.S.)	37117	34591	33620	33500	33938	34076	33904	33697	33541	33326	33302
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	4561	4561	4561	4561	4561	4561	4561	4561	4561	4561	4561
NEW BRUNSWICK	1365	1365	1365	1365	1365	1365	1365	1365	1365	1365	1365
NOVA SCOTIA	334	334	334	334	334	334	334	334	334	334	334
ONTARIO	2232	2232	2232	2232	2232	2232	2232	2232	2232	2232	2232
QUEBEC	630	630	630	630	630	630	630	630	630	630	630
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	4561	4561	4561	4561	4561	4561	4561	4561	4561	4561	4561
NERC-MEXICO											
WSCC	286	286	286	286	431	431	431	431	576	576	576
TOTAL(MEXICO)	286	286	286	286	431	431	431	431	576	576	576
NERC-TOTAL	41964	39438	38467	38347	38930	39068	38896	38689	38678	38463	38439

APPENDIX A

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED OIL-COMBUSTION TURBINE GENERATING CAPACITY[a] - SUMMER - MW

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	1960	1960	1960	1960	1960	1960	1960	1960	2120	2280	2280
ERCOT	41	41	41	41	41	41	41	41	41	41	41
MAAC	4941	4480	4480	4480	4484	4483	4480	4486	4486	4487	4547
MAIN	1158	1149	1149	1149	1149	1149	1149	1149	1149	1149	1149
CMNWLTH EDISON	438	438	438	438	438	438	438	438	438	438	438
EAST MISSOURI	362	362	362	362	362	362	362	362	362	362	362
S CENT ILLINOIS	47	47	47	47	47	47	47	47	47	47	47
WIS-UPPER MICH	311	302	302	302	302	302	302	302	302	302	302
MAPP	2216	2302	2308	2209	2294	2344	2344	2344	2394	2474	2491
NPCC	2694	2677	2575	2571	2571	2571	2636	2636	2636	2636	2579
NEW YORK	1782	1782	1782	1782	1782	1782	1782	1782	1782	1782	1782
NEW ENGLAND	912	895	793	789	789	789	854	854	854	854	797
SERC	6322	6321	6321	6276	6502	6666	6654	6700	6700	6750	6825
FLORIDA	2394	2394	2394	2394	2570	2698	2717	2745	2745	2745	2820
SOUTHERN	1161	1161	1161	1116	1166	1216	1185	1203	1203	1253	1253
TVA	1464	1464	1464	1464	1464	1464	1464	1464	1464	1464	1464
VACAR	1303	1302	1302	1302	1302	1288	1288	1288	1288	1288	1288
SPP	1387	1383	1383	1199	1199	1199	1197	1197	1217	1177	1277
SOUTHEAST	222	221	221	221	221	221	221	221	221	221	321
WEST CENTRAL	67	67	67	63	63	63	61	61	61	21	21
NORTHERN	1098	1095	1095	915	915	915	915	915	935	935	935
WSCC[b]	1384	1384	1384	1384	1384	1384	1373	1362	1362	1362	1362
NW POOL	241	249	241	249	249	249	238	227	227	227	219
ROCKY MT-AREA	411	411	411	411	411	411	411	411	411	411	411
ARIZ-N.MEX	141	141	141	141	141	141	141	141	141	141	141
CALIF-SO.NEV	591	591	591	591	591	591	591	591	591	591	591
TOTAL(U.S.)	22103	21697	21601	21269	21584	21797	21834	21875	22105	22356	22551
NERC-CANADA											
MAPP	22	22	22	22	22	22	22	22	22	22	22
NPCC	987	942	942	890	890	890	890	890	890	890	890
NEW BRUNSWICK	26	26	26	26	26	26	26	26	26	26	26
NOVA SCOTIA	205	205	205	205	205	205	205	205	205	205	205
ONTARIO	321	276	276	224	224	224	224	224	224	224	224
QUEBEC	435	435	435	435	435	435	435	435	435	435	435
WSCC	97	97	97	97	97	97	94	94	94	94	94
TOTAL(CANADA)	1106	1061	1061	1009	1009	1009	1006	1006	1006	1006	1006
NERC-MEXICO											
WSCC	169	169	169	214	214	214	214	214	214	214	214
TOTAL(MEXICO)	169	169	169	214	214	214	214	214	214	214	214
NERC-TOTAL	23378	22927	22831	22492	22807	23020	23054	23095	23325	23576	23771

a) Includes diesel units.
b) See Appendix A, page 1, footnote a.

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED OIL-COMBINED CYCLE GENERATING CAPACITY - SUMMER - MW

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	220	220	220	220	220	220	220	220	220	220	220
ERCOT	0	0	0	0	0	0	0	0	0	0	0
MAAC	114	114	114	114	114	114	114	114	114	114	114
MAIN	38	38	38	38	38	38	38	38	38	38	38
CMNWLTH EDISON	0	0	0	0	0	0	0	0	0	0	0
EAST MISSOURI	0	0	0	0	0	0	0	0	0	0	0
S CENT ILLINOIS	0	0	0	0	0	0	0	0	0	0	0
WIS-UPPER MICH	38	38	38	38	38	38	38	38	38	38	38
MAPP	51	51	51	51	51	51	51	51	51	51	51
NPCC	165	165	165	165	165	165	165	165	165	165	165
NEW YORK	0	0	0	0	0	0	0	0	0	0	0
NEW ENGLAND	165	165	165	165	165	165	165	165	165	165	165
SERC	2	2	2	2	2	2	2	2	311	311	311
FLORIDA	2	2	2	2	2	2	2	2	2	2	2
SOUTHERN	0	0	0	0	0	0	0	0	0	0	0
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	0	0	0	0	0	0	0	0	309	309	309
SPP	11	11	11	11	11	11	11	11	11	11	11
SOUTHEAST	0	0	0	0	0	0	0	0	0	0	0
WEST CENTRAL	0	0	0	0	0	0	0	0	0	0	0
NORTHERN	11	11	11	11	11	11	11	11	11	11	11
WSCC	0	0	0	0	0	0	0	0	0	0	0
NW POOL	0	0	0	0	0	0	0	0	0	0	0
ROCKY MT-AREA	0	0	0	0	0	0	0	0	0	0	0
ARIZ-N.MEX	0	0	0	0	0	0	0	0	0	0	0
CALIF-SO.NEV	0	0	0	0	0	0	0	0	0	0	0
TOTAL(U.S.)	601	601	601	601	601	601	601	601	910	910	910
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	0	0	0	0	0	0	0	0	0	0	0
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	601	601	601	601	601	601	601	601	910	910	910

APPENDIX A

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED GAS-FIRED GENERATING CAPACITY[a] - SUMMER - MW

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	1250	1250	1150	1150	1150	1150	1150	1150	1150	1150	1150
ERCOT	25744	24609	24988	25020	24875	24760	24329	23737	23709	23719	23277
MAAC	198	198	198	198	198	198	198	498	498	498	498
MAIN	304	304	304	304	304	304	304	304	304	304	304
CMNWLTH EDISON	0	0	0	0	0	0	0	0	0	0	0
EAST MISSOURI	72	72	72	72	72	72	72	72	72	72	72
S CENT ILLINOIS	30	30	30	30	30	30	30	30	30	30	30
WIS-UPPER MICH	202	202	202	202	202	202	202	202	202	202	202
MAPP	117	147	147	102	102	102	102	102	102	102	102
NPCC	976	954	954	954	954	954	954	954	954	954	954
NEW YORK	45	45	45	45	45	45	45	45	45	45	45
NEW ENGLAND	931	909	909	909	909	909	909	909	909	909	909
SERC	762	762	762	762	708	637	507	507	507	507	507
FLORIDA	0	0	0	0	0	0	0	0	0	0	0
SOUTHERN	753	753	753	753	699	637	507	507	507	507	507
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	9	9	9	9	9	0	0	0	0	0	0
SPP	13745	13432	13549	13549	13549	13810	13797	13861	13973	14392	14603
SOUTHEAST	4588	4230	4230	4230	4230	4491	4468	4434	4545	4589	4767
WEST CENTRAL	8788	8833	8950	8950	8950	8950	8960	9058	8999	9374	9407
NORTHERN	369	369	369	369	369	369	369	369	429	429	429
WSCC	468	468	468	468	468	460	452	452	452	452	452
NW POOL	12	12	12	12	12	12	12	12	12	12	12
ROCKY MT-AREA	88	88	88	88	88	80	72	72	72	72	72
ARIZ-N.MEX	10	10	10	10	10	10	10	10	10	10	10
CALIF-SO.NEV	358	358	358	358	358	358	358	358	358	358	358
TOTAL(U.S.)	43564	42124	42520	42507	42308	42375	41793	41565	41649	42078	41847
NERC-CANADA											
MAPP	253	253	403	603	703	703	703	703	703	703	703
NPCC	588	588	588	588	588	588	588	588	588	588	588
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	588	588	588	588	588	588	588	588	588	588	588
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	1246	1275	1275	1275	1275	1228	1123	1123	1123	1123	1123
TOTAL(CANADA)	2087	2116	2266	2466	2566	2519	2414	2414	2414	2414	2414
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	45651	44240	44786	44973	44874	44894	44207	43979	44063	44492	44261

a) Includes gas-fired steam, combustion turbine(and diesel) and combined cycle units.

APPENDIX A

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED GAS-STEAM GENERATING CAPACITY - SUMMER - MW

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	130	130	30	30	30	30	30	30	30	30	30
ERCOT	25442	24307	24518	24518	24373	24258	23827	23055	22952	22662	22220
MAAC	0	0	0	0	0	0	0	0	0	0	0
MAIN	61	61	61	61	61	61	61	61	61	61	61
CMNWLTH EDISON	0	0	0	0	0	0	0	0	0	0	0
EAST MISSOURI	35	35	35	35	35	35	35	35	35	35	35
S CENT ILLINOIS	0	0	0	0	0	0	0	0	0	0	0
WIS-UPPER MICH	26	26	26	26	26	26	26	26	26	26	26
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	609	592	592	592	592	592	592	592	592	592	592
NEW YORK	0	0	0	0	0	0	0	0	0	0	0
NEW ENGLAND	609	592	592	592	592	592	592	592	592	592	592
SERC	712	712	712	712	658	596	466	466	466	466	466
FLORIDA	0	0	0	0	0	0	0	0	0	0	0
SOUTHERN	712	712	712	712	658	596	466	466	466	466	466
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	0	0	0	0	0	0	0	0	0	0	0
SPP	12413	12054	12171	12171	12171	12441	12418	12432	12543	12513	12576
SOUTHEAST	4579	4221	4221	4221	4221	4491	4468	4434	4545	4589	4767
WEST CENTRAL	7692	7691	7808	7808	7808	7808	7808	7856	7856	7782	7667
NORTHERN	142	142	142	142	142	142	142	142	142	142	142
WSCC	446	446	446	446	446	438	430	430	430	430	430
NW POOL	0	0	0	0	0	0	0	0	0	0	0
ROCKY MT-AREA	88	88	88	88	88	80	72	72	72	72	72
ARIZ-N.MEX	0	0	0	0	0	0	0	0	0	0	0
CALIF-SO.NEV	358	358	358	358	358	358	358	358	358	358	358
TOTAL(U.S.)	39813	38302	38530	38530	38331	38416	37824	37066	37074	36754	36375
NERC-CANADA											
MAPP	96	96	96	96	96	96	96	96	96	96	96
NPCC	588	588	588	588	588	588	588	588	588	588	588
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	588	588	588	588	588	588	588	588	588	588	588
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	966	966	966	966	966	966	888	888	888	888	888
TOTAL(CANADA)	1650	1650	1650	1650	1650	1650	1572	1572	1572	1572	1572
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	41463	39952	40180	40180	39981	40066	39396	38638	38646	38326	37947

APPENDIX A

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED GAS-COMBUSTION TURBINE GENERATING CAPACITY[a] - SUMMER - MW

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120
ERCOT	274	274	442	474	474	474	474	654	729	1029	1029
MAAC	198	198	198	198	198	198	198	198	198	198	198
MAIN	243	243	243	243	243	243	243	243	243	243	243
CMNWLTH EDISON	0	0	0	0	0	0	0	0	0	0	0
EAST MISSOURI	37	37	37	37	37	37	37	37	37	37	37
S CENT ILLINOIS	30	30	30	30	30	30	30	30	30	30	30
WIS-UPPER MICH	176	176	176	176	176	176	176	176	176	176	176
MAPP	117	147	147	102	102	102	102	102	102	102	102
NPCC	241	236	236	236	236	236	236	236	236	236	236
NEW YORK	45	45	45	45	45	45	45	45	45	45	45
NEW ENGLAND	196	191	191	191	191	191	191	191	191	191	191
SERC	50	50	50	50	50	41	41	41	41	41	41
FLORIDA	0	0	0	0	0	0	0	0	0	0	0
SOUTHERN	41	41	41	41	41	41	41	41	41	41	41
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	9	9	9	9	9	0	0	0	0	0	0
SPP	625	625	625	625	625	616	626	676	677	1126	1274
SOUTHEAST	9	9	9	9	9	0	0	0	0	0	0
WEST CENTRAL	389	389	389	389	389	389	399	449	390	839	987
NORTHERN	227	227	227	227	227	227	227	227	287	287	287
WSCC	12	12	12	12	12	12	12	12	12	12	12
NW POOL	12	12	12	12	12	12	12	12	12	12	12
ROCKY MT-AREA	0	0	0	0	0	0	0	0	0	0	0
ARIZ-N.MEX	0	0	0	0	0	0	0	0	0	0	0
CALIF-SO.NEV	0	0	0	0	0	0	0	0	0	0	0
TOTAL(U.S.)	2880	2905	3073	3060	3060	3042	3052	3292	3358	4107	4255
NERC-CANADA											
MAPP	157	157	307	507	607	607	607	607	607	607	607
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	280	309	309	309	309	262	235	235	235	235	235
TOTAL(CANADA)	437	466	616	816	916	869	842	842	842	842	842
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	3317	3371	3689	3876	3976	3911	3894	4124	4200	4949	5097

a) Includes diesel units.

APPENDIX A
NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED GAS-COMBINED CYCLE GENERATING CAPACITY - SUMMER - MW

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	0	0	0	0	0	0	0	0	0	0	0
ERCOT	28	28	28	28	28	28	28	28	28	28	28
MAAC	0	0	0	0	0	0	0	300	300	300	300
MAIN	0	0	0	0	0	0	0	0	0	0	0
CMNWLTH EDISON	0	0	0	0	0	0	0	0	0	0	0
EAST MISSOURI	0	0	0	0	0	0	0	0	0	0	0
S CENT ILLINOIS	0	0	0	0	0	0	0	0	0	0	0
WIS-UPPER MICH	0	0	0	0	0	0	0	0	0	0	0
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	126	126	126	126	126	126	126	126	126	126	126
NEW YORK	0	0	0	0	0	0	0	0	0	0	0
NEW ENGLAND	126	126	126	126	126	126	126	126	126	126	126
SERC	0	0	0	0	0	0	0	0	0	0	0
FLORIDA	0	0	0	0	0	0	0	0	0	0	0
SOUTHERN	0	0	0	0	0	0	0	0	0	0	0
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	0	0	0	0	0	0	0	0	0	0	0
SPP	707	753	753	753	753	753	753	753	753	753	753
SOUTHEAST	0	0	0	0	0	0	0	0	0	0	0
WEST CENTRAL	707	753	753	753	753	753	753	753	753	753	753
NORTHERN	0	0	0	0	0	0	0	0	0	0	0
WSCC	10	10	10	10	10	10	10	10	10	10	10
NW POOL	0	0	0	0	0	0	0	0	0	0	0
ROCKY MT-AREA	0	0	0	0	0	0	0	0	0	0	0
ARIZ-N.MEX	10	10	10	10	10	10	10	10	10	10	10
CALIF-SO.NEV	0	0	0	0	0	0	0	0	0	0	0
TOTAL(U.S.)	871	917	917	917	917	917	917	1217	1217	1217	1217
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	0	0	0	0	0	0	0	0	0	0	0
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	871	917	917	917	917	917	917	1217	1217	1217	1217

APPENDIX A

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED DUAL FUELED (OIL/GAS)-FIRED GENERATING CAPACITY[a] - SUMMER - MW

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	0	0	0	0	0	0	0	0	0	0	0
ERCOT	6641	6641	6673	6831	6831	7601	7601	7901	8001	8101	8101
MAAC[b]	10421	10421	10421	10421	10421	10421	10421	10421	10421	10421	10421
MAIN	1473	1485	1485	1485	1485	1443	1443	1443	1443	1443	1443
CMNWLTH EDISON	602	602	602	602	602	602	602	602	602	602	602
EAST MISSOURI	230	231	231	231	231	231	231	231	231	231	231
S CENT ILLINOIS	310	310	310	310	310	310	310	310	310	310	310
WIS-UPPER MICH	331	342	342	342	342	300	300	300	300	300	300
MAPP	621	838	843	793	708	708	708	702	702	702	680
NPCC	9757	9757	9757	9358	9358	9312	9312	9312	9312	9233	9233
NEW YORK	8464	8464	8464	8065	8065	8019	8019	8019	8019	7956	7956
NEW ENGLAND	1293	1293	1293	1293	1293	1293	1293	1293	1293	1277	1277
SERC	11367	12925	12925	12946	13006	13083	13213	13309	13223	13209	14063
FLORIDA	8224	9790	9790	9811	9871	9863	9993	10089	10003	9989	10843
SOUTHERN	421	421	421	421	421	421	421	421	421	421	421
TVA	602	602	602	602	602	602	602	602	602	602	602
VACAR	2120	2112	2112	2112	2112	2197	2197	2197	2197	2197	2197
SPP	16180	16029	15984	16239	16239	16401	16616	16609	16676	16625	16293
SOUTHEAST	12603	12603	12578	12578	12578	12578	12379	12041	12041	11635	11303
WEST CENTRAL	1428	1428	1428	1428	1428	1598	1888	2168	2168	2448	2448
NORTHERN	2149	1998	1978	2233	2233	2225	2349	2400	2467	2542	2542
WSCC[c]	30588	30362	30256	29838	29752	29538	29307	28742	28595	28594	28583
NW POOL	1800	1881	1800	1951	1951	1951	1951	1951	1951	1951	1870
ROCKY MT-AREA	453	436	436	436	436	436	436	436	436	436	436
ARIZ-N.MEX	5064	4785	4785	4698	4594	4594	4594	4594	4594	4702	4702
CALIF-SO.NEV	23271	23341	23235	22834	22852	22638	22407	21842	21695	21596	21575
TOTAL(U.S.)	87248	88458	88344	87911	87800	88507	88621	88439	88373	88328	88817
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	900	900	900	900	900	900	900	900	900	900	900
TOTAL(CANADA)	900	900	900	900	900	900	900	900	900	900	900
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	88148	89358	89244	88811	88700	89407	89521	89339	89273	89228	89717

a) Includes dual fueled(oil/gas)-fired steam, combustion turbine(and diesel) and combined cycle units.

b) Includes 7,921 MW of dual fueled(coal/oil, coal/natural gas, and oil/natural gas) steam capacity and 2,282 MW of dual fueled (oil/natural gas and kerosene/natural gas) combustion turbine(and diesel) capacity over the 1985-1995 period. Several of these facilities would require the issuance of various permits and would incur some time delay for conversion from one fuel to the other.

c) See Appendix A, page 1, footnote a.

APPENDIX A
NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED DUAL FUELED (OIL/GAS)-STEAM GENERATING CAPACITY - SUMMER - MW

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	0	0	0	0	0	0	0	0	0	0	0
ERCOT	5412	5412	5412	5412	5412	5412	5412	5412	5412	5412	5412
MAAC[a]	7921	7921	7921	7921	7921	7921	7921	7921	7921	7921	7921
MAIN	445	447	447	447	447	405	405	405	405	405	405
CMNWLTH EDISON	0	0	0	0	0	0	0	0	0	0	0
EAST MISSOURI	230	231	231	231	231	231	231	231	231	231	231
S CENT ILLINOIS	147	147	147	147	147	147	147	147	147	147	147
WIS-UPPER MICH	68	69	69	69	69	27	27	27	27	27	27
MAPP	204	221	226	171	171	171	171	165	165	165	165
NPCC	7715	7715	7715	7316	7316	7270	7270	7270	7270	7191	7191
NEW YORK	6724	6724	6724	6325	6325	6279	6279	6279	6279	6216	6216
NEW ENGLAND	991	991	991	991	991	991	991	991	991	975	975
SERC	7371	8937	8937	8930	8930	8884	8884	8924	8866	8866	9132
FLORIDA	6100	7666	7666	7659	7659	7659	7659	7699	7641	7641	7907
SOUTHERN	359	359	359	359	359	359	359	359	359	359	359
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	912	912	912	912	912	866	866	866	866	866	866
SPP	15201	15051	15006	15006	15006	14998	14912	14625	14692	14286	13954
SOUTHEAST	12216	12216	12191	12191	12191	12191	11992	11654	11654	11248	10916
WEST CENTRAL	1428	1428	1428	1428	1428	1428	1478	1478	1478	1478	1478
NORTHERN	1557	1407	1387	1387	1387	1379	1442	1493	1560	1560	1560
WSCC	24334	23857	23439	22961	22810	22590	22359	21790	21643	21659	21648
NW POOL	532	532	532	602	602	602	602	602	602	602	602
ROCKY MT-AREA	278	261	261	261	261	261	261	261	261	261	261
ARIZ-N.MEX	2877	2598	2599	2511	2407	2407	2407	2407	2407	2515	2515
CALIF-SO NEV	20647	20466	20048	19587	19540	19320	19089	18520	18373	18281	18270
TOTAL(U.S.)	68603	69561	69103	68164	68013	67651	67334	66512	66374	65905	65828
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	900	900	900	900	900	900	900	900	900	900	900
TOTAL(CANADA)	900	900	900	900	900	900	900	900	900	900	900
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	69503	70461	70003	69064	68913	68551	68234	67412	67274	66805	66728

[a] Includes 7,921 MW dual fueled coal/oil, coal/natural gas and oil/natural gas steam units. Several of these facilities would require the issuance of various permits and would incur some time delay for conversion from one fuel to the other.

APPENDIX A

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED DUAL FUELED (OIL/GAS)-COMBUSTION TURBINE GENERATING CAPACITY[a] - SUMMER - MW

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	0	0	0	0	0	0	0	0	0	0	0
ERCOT	731	731	763	921	921	1691	1691	1991	2091	2191	2191
MAAC[b]	2282	2282	2282	2282	2282	2282	2282	2282	2282	2282	2282
MAIN	1028	1038	1038	1038	1038	1038	1038	1038	1038	1038	1038
CMNWLTH EDISON	602	602	602	602	602	602	602	602	602	602	602
EAST MISSOURI	0	0	0	0	0	0	0	0	0	0	0
S CENT ILLINOIS	163	163	163	163	163	163	163	163	163	163	163
WIS-UPPER MICH	263	273	273	273	273	273	273	273	273	273	273
MAPP	557	557	557	562	477	477	477	477	477	477	455
NPCC	1876	1876	1876	1876	1876	1876	1876	1876	1876	1876	1876
NEW YORK	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740	1740
NEW ENGLAND	136	136	136	136	136	136	136	136	136	136	136
SERC	3342	3334	3334	3334	3394	3309	3439	3495	3467	3453	3447
FLORIDA	1562	1562	1562	1562	1622	1614	1744	1800	1772	1758	1752
SOUTHERN	62	62	62	62	62	62	62	62	62	62	62
TVA	602	602	602	602	602	602	602	602	602	602	602
VACAR	1116	1108	1108	1108	1108	1031	1031	1031	1031	1031	1031
SPP	690	689	689	779	779	949	1250	1530	1530	1720	1720
SOUTHEAST	184	184	184	184	184	184	184	184	184	184	184
WEST CENTRAL	0	0	0	0	0	170	410	690	690	970	970
NORTHERN	506	505	505	595	595	595	656	656	656	566	566
WSCC[c]	3788	4039	4351	4411	4476	4482	4482	4486	4486	4469	4469
NW POOL	775	849	775	849	849	849	849	849	849	849	775
ROCKY MT-AREA	175	175	175	175	175	175	175	175	175	175	175
ARIZ-N.MEX	1348	1348	1348	1348	1348	1348	1348	1348	1348	1348	1348
CALIF-SO.NEV	1490	1741	2053	2113	2178	2184	2184	2188	2189	2171	2171
TOTAL(U.S.)	14294	14546	14890	15203	15243	16104	16535	17175	17247	17506	17478
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	0	0	0	0	0	0	0	0	0	0	0
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	14294	14546	14890	15203	15243	16104	16535	17175	17247	17506	17478

a) Includes diesel units.

b) Includes 2,282 MW dual fueled oil/natural gas and kerosene/natural gas combustion turbine(and diesel) units. Several of these facilities would require the issuance of various permits and would incur some time delay for conversion from one fuel to the other.

c) See Appendix A, page 1, footnote a.

APPENDIX A
NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED DUAL FUELED (OIL/GAS)-COMBINED CYCLE GENERATING CAPACITY - SUMMER - MW

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	0	0	0	0	0	0	0	0	0	0	0
ERCOT	498	498	498	498	498	498	498	498	498	498	498
MAAC	218	218	218	218	218	218	218	218	218	218	218
MAIN	0	0	0	0	0	0	0	0	0	0	0
CMNWLTH EDISON	0	0	0	0	0	0	0	0	0	0	0
EAST MISSOURI	0	0	0	0	0	0	0	0	0	0	0
S CENT ILLINOIS	0	0	0	0	0	0	0	0	0	0	0
WIS-UPPER MICH	0	0	0	0	0	0	0	0	0	0	0
MAPP	60	60	60	60	60	60	60	60	60	60	60
NPCC	166	166	166	166	166	166	166	166	166	166	166
NEW YORK	0	0	0	0	0	0	0	0	0	0	0
NEW ENGLAND	166	166	166	166	166	166	166	166	166	166	166
SERC	654	654	654	682	682	890	890	890	890	890	1484
FLORIDA	562	562	562	590	590	590	590	590	590	590	1184
SOUTHERN	0	0	0	0	0	0	0	0	0	0	0
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	92	92	92	92	92	300	300	300	300	300	300
SPP	289	289	289	454	454	454	454	454	454	619	619
SOUTHEAST	203	203	203	203	203	203	203	203	203	203	203
WEST CENTRAL	0	0	0	0	0	0	0	0	0	0	0
NORTHERN	86	86	86	251	251	251	251	251	251	416	416
WSCC[a]	2466	2466	2466	2466	2466	2466	2466	2466	2466	2466	2466
NW POOL	493	500	493	500	500	500	500	500	500	500	493
ROCKY MT-AREA	0	0	0	0	0	0	0	0	0	0	0
ARIZ-N.MEX	839	839	839	839	839	839	839	839	839	839	839
CALIF-SO.NEV	1134	1134	1134	1134	1134	1134	1134	1134	1134	1134	1134
TOTAL(U.S.)	4351	4351	4351	4544	4544	4752	4752	4752	4752	4917	5511
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	0	0	0	0	0	0	0	0	0	0	0
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	4351	4351	4351	4544	4544	4752	4752	4752	4752	4917	5511

a) See Appendix A, page 1, footnote a.

APPENDIX A

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED OTHER GENERATING CAPACITY - SUMMER - MW

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	0	0	0	0	0	0	0	0	0	0	0
ERCOT[a]	0	0	0	20	56	56	156	306	456	456	456
MAAC[b]	279	279	279	342	405	468	531	540	603	791	979
MAIN	3	3	23	33	48	58	91	106	112	125	134
CMNWLTH EDISON	0	0	0	0	0	0	0	0	0	0	0
EAST MISSOURI	0	0	0	0	0	0	0	0	0	0	0
S CENT ILLINOIS	3	3	3	3	3	3	3	3	3	3	3
WIS-UPPER MICH	0	0	20	30	45	55	88	103	109	122	131
MAPP	72	72	72	72	72	72	72	72	72	72	72
NPCC	180	315	464	586	643	921	986	1143	1168	1242	1312
NEW YORK	128	263	412	534	591	869	934	1091	1116	1190	1260
NEW ENGLAND	52	52	52	52	52	52	52	52	52	52	52
SERC	80	262	351	596	668	774	783	798	807	972	2250
FLORIDA	0	0	0	0	0	0	0	0	0	0	426
SOUTHERN	0	0	0	0	0	0	0	0	0	0	0
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	80	262	351	596	668	774	783	798	807	972	1824
SPP	53	53	157	157	157	157	157	157	457	457	507
SOUTHEAST	0	0	0	0	0	0	0	0	0	0	0
WEST CENTRAL	53	53	157	157	157	157	157	157	457	457	507
NORTHERN	0	0	0	0	0	0	0	0	0	0	0
WSCC	1128	1840	2874	4573	4977	5974	6253	7337	7552	8315	8945
NW POOL	168	197	203	240	241	241	241	241	241	241	241
ROCKY MT-AREA	13	17	158	158	158	158	158	158	158	158	158
ARIZ-N.MEX	0	0	58	58	58	78	78	78	78	78	78
CALIF-SO NEV	947	1626	2455	4117	4520	5497	5776	6860	7075	7836	8468
TOTAL(U.S.)	1795	2824	4220	6379	7026	8480	9029	10459	11227	12430	14655
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	0	0	0	0	0	30	60	90	120	150	180
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	0	0	0	30	60	90	120	150	180
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	0	0	0	0	0	30	60	90	120	150	180
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	1795	2824	4220	6379	7026	8510	9089	10549	11347	12580	14835

a) Includes refuse and undesignated capacity.
b) Includes #6 fuel oil, coke oven gas, refinery gas, petroleum coke and oil capacity for the present plus capacity whose type and fuel are undetermined for the future.

APPENDIX B

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED ELECTRIC ENERGY PRODUCED BY COAL - Millions kWh

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	392801	388945	382450	394050	399380	403910	405250	410290	413330	419980	428080
ERCOT	72304	75443	78314	80818	82585	83939	88291	97816	104498	116696	129542
MAAC	95851	94412	94429	91966	94205	93075	94731	96974	98320	100460	103061
MAIN	108707	110735	105036	99838	103778	106128	106908	108349	111016	111771	114197
CMNWLTH EDISON	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
EAST MISSOURI	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
S CENT ILLINOIS	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
WIS-UPPER MICH	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
MAPP	73624	77582	78628	79819	80384	82661	81814	82789	85906	86660	87340
NPCC	40537	38635	41197	43201	42620	41614	40736	42705	43870	44666	44997
NEW YORK	24135	22391	25568	28050	27994	27158	27011	28281	28564	29160	29599
NEW ENGLAND	16402	16244	15629	15151	14626	14456	13725	14424	15306	15506	15398
SERC	317768	312970	301677	300830	304143	305854	329396	334493	335188	336007	337027
FLORIDA	37134	36621	40703	43198	46926	46884	48164	48567	49208	49547	50245
SOUTHERN	112249	115396	108205	106027	104510	104409	118258	118889	112959	110618	110931
TVA	77796	71703	66432	67202	65082	62984	66186	69307	68833	64906	66679
VACAR	90589	89250	86337	84403	87625	91577	96788	97730	104188	110736	109172
SPP	127853	117212	120825	122672	124586	127445	128540	131386	134386	136866	144169
SOUTHEAST	34870	26451	27345	27853	26724	27127	27432	27395	28877	29071	33744
WEST CENTRAL	44958	45646	46871	47554	49248	50350	50083	51791	52708	53973	55947
NORTHERN	48025	45115	46609	47265	48614	49968	51025	52200	52801	53822	54478
WSCC	154946	156202	166555	176808	183765	184535	188012	190343	192172	196951	199529
NW POOL	58450	51470	56185	63566	69676	69969	70288	70620	70751	70664	70689
ROCKY MT-AREA	28435	29605	31020	31960	33426	34350	35421	35852	36279	37919	38955
ARIZ-N.MEX	42349	42352	43196	42059	43509	45144	47709	48850	49649	50126	51602
CALIF-SO.NEV	25712	32775	36154	39221	37154	35072	34594	35021	35493	38242	38283
TOTAL(U.S.)	1384391	1372136	1369111	1390002	1415446	1429161	1463678	1495145	1518686	1550077	1587942
NERC-CANADA											
MAPP	9350	8243	8581	9037	9243	9375	9710	10305	10412	10614	10957
NPCC	36636	28269	25204	22158	18974	21978	24159	23487	25154	25722	29627
NEW BRUNSWICK	1190	1029	1234	1226	1282	1565	1893	1857	1863	1868	1873
NOVA SCOTIA	5515	5216	5350	5735	5950	6230	7394	7840	8128	8348	8699
ONTARIO	29931	22024	18620	15197	11742	14183	14872	13790	15163	15506	19055
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	27678	28545	29372	30117	31086	32790	34527	35962	37220	38606	39868
TOTAL(CANADA)	73664	65057	63157	61312	59303	64143	68396	69754	72786	74942	80452
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	1458055	1437193	1432268	1451314	1474749	1493304	1532074	1564899	1591472	1625019	1668394

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED ELECTRIC ENERGY PRODUCED BY NUCLEAR - Millions kWh

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	21389	22160	31900	35700	37290	38650	40000	41360	42720	44070	44070
ERCOT	0	0	5969	18752	25037	27061	27840	28003	27964	27965	27964
MAAC	48554	59395	58628	64308	62704	67807	70428	70304	72691	72536	71796
MAIN	55066	60751	72814	81241	80560	81568	84491	84511	83689	85725	85349
CMNWLTH EDISON	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
EAST MISSOURI	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
S CENT ILLINOIS	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
WIS-UPPER MICH	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
MAPP	20610	25142	26357	25060	25917	24481	24527	26552	24886	24450	26337
NPCC	51319	54392	69851	73823	74966	77485	75363	77757	76674	77844	76362
NEW YORK	24092	21912	28467	31555	32010	32621	33199	33304	33199	33197	33196
NEW ENGLAND	27227	32480	41384	42268	42956	44864	42164	44453	43475	44647	43166
SERC	126310	143230	162845	174398	188332	195286	191347	194651	190615	197862	202653
FLORIDA	23396	26375	24453	27904	26593	25742	26830	27567	24505	27866	26602
SOUTHERN	16850	21093	28497	31463	35449	38699	34831	34199	34192	34831	34199
TVA	12646	15876	23141	26383	35698	40036	40037	40039	41898	47783	48054
VACAR	73418	79886	86754	88648	90592	90809	89649	92846	90020	87382	93798
SPP	19194	28728	30945	31000	33308	33555	33740	35135	33113	34060	34601
SOUTHEAST	16839	23173	25798	24999	27300	27548	27727	29161	27087	28037	28593
WEST CENTRAL	0	0	0	0	0	0	0	0	0	0	0
NORTHERN	2355	5555	5147	6001	6008	6007	6013	5974	6026	6023	6008
WSCC	34600	59818	66347	71897	71797	73333	73758	73659	71136	68568	66955
NW POOL	14816	17262	17942	18051	17940	17940	17940	18051	15418	13438	13438
ROCKY MT-AREA	-31[a]	1450	1530	1563	1563	1563	1563	1563	1563	1563	1563
ARIZ-N.MEX	418	9289	12829	16144	16232	16856	16965	17005	16951	16993	17014
CALIF-SO.NEV	19397	31817	34046	36139	36062	36974	37290	37040	37194	36574	34940
TOTAL(U.S.)	377042	453616	525656	576179	599911	619226	621494	631932	623488	633080	636087
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	57585	70741	79863	89075	97071	98584	101562	108486	112378	113357	112575
NEW BRUNSWICK	5426	4718	4051	4524	4524	4524	4524	4524	4524	4524	4524
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	48459	61823	71612	80351	88347	89860	92838	99762	103654	104633	103851
QUEBEC	3700	4200	4200	4200	4200	4200	4200	4200	4200	4200	4200
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	57585	70741	79863	89075	97071	98584	101562	108486	112378	113357	112575
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	434627	524357	605519	665254	696982	717810	723056	740418	735866	746437	748662

a) Power to auxiliaries of Ft.St.Vrain nuclear unit.

APPENDIX B

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED ELECTRIC ENERGY PRODUCED BY HYDRO[a] - Millions kWh

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	2350	2375	2400	2400	2400	2400	2400	2400	2400	2400	2400
ERCOT	273[b]	268	276	280	280	280	280	280	280	280	280
MAAC	3772[b]	3718	3718	3793	3793	3793	3793	3793	3793	3793	3793
MAIN	3689[b]	2322	2339	2345	2345	2344	2349	2354	2354	2355	2360
CMNWLTH EDISON	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
EAST MISSOURI	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
S CENT ILLINOIS	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
WIS-UPPER MICH	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
MAPP	12533[b]	12010	12497	12722	12787	12953	12876	12943	12972	12972	12972
NPCC	32287[b]	30999	28990	28494	28522	28606	28732	28969	28920	29119	29262
NEW YORK	28062[b]	26445	24631	24163	24189	24292	24411	24598	24601	24801	24929
NEW ENGLAND	4225	4554	4359	4331	4333	4314	4321	4371	4319	4318	4333
SERC	24151	32563	32564	32564	32564	32564	35103	35117	35149	35149	35212
FLORIDA	12	27	27	27	27	27	27	27	27	27	27
SOUTHERN	6480	8475	8475	8475	8475	8475	11014	11028	11060	11060	11123
TVA	13306	18560	18560	18560	18560	18560	18560	18560	18560	18560	18560
VACAR	4353	5501	5502	5502	5502	5502	5502	5502	5502	5502	5502
SPP	11181[b]	5689	5689	5689	5816	5816	5816	5816	5816	5816	5816
SOUTHEAST	526[b]	167	167	167	294	294	294	294	294	294	294
WEST CENTRAL	10614[b]	5462	5462	5462	5462	5462	5462	5462	5462	5462	5462
NORTHERN	41	60	60	60	60	60	60	60	60	60	60
WSCC	187745[b]	154714	156052	154987	154702	155864	155228	156030	156092	156365	155721
NW POOL	136087[b]	110814	112635	112591	111495	111909	111200	111542	111223	111265	111265
ROCKY MT-AREA	11761[b]	8983	8989	8988	8988	8988	8988	8988	8988	8988	8988
ARIZ-N.MEX	4292[b]	2483	2434	2514	2514	2612	2552	2639	2723	2723	2723
CALIF-SO.NEV	35605[b]	32434	31994	30894	31705	32355	32488	32861	33158	33389	32745
TOTAL(U.S.)	277981[b]	244658	244525	243274	243209	244620	246577	247702	247776	248249	247816
NERC-CANADA											
MAPP	24339	26774	26421	25328	25328	25756	30057	32336	32368	32368	32368
NPCC	141727	143623	151152	156348	163932	169522	174438	171075	169460	171667	171705
NEW BRUNSWICK	2093	2695	2695	2695	2695	2695	2695	2695	2695	2695	2695
NOVA SCOTIA	854	980	980	980	980	980	980	980	980	980	980
ONTARIO	37516[b]	37304	36051	35810	35586	35620	35881	34664	34754	35806	35965
QUEBEC	101264	102644	111426	116863	124671	130227	134882	132736	131031	132186	132065
WSCC	52449[b]	44380	44348	45221	46069	47094	47182	47131	46882	46658	46650
TOTAL(CANADA)	218515[b]	214777	221921	226897	235329	242372	251677	250542	248710	250693	250723
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	496496[b]	459435	466446	470171	478538	486992	498254	498244	496486	498942	498539

a) Conventional hydro. Adverse hydro conditions are generally assumed for forecast years by most systems.
b) Data for actual year can be greater than for forecast years if median or average hydro conditions occurred.

APPENDIX B

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED ELECTRIC ENERGY PRODUCED BY OIL AND GAS[a]- Millions kWh

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	1046	770	700	700	780	790	800	800	800	800	800
ERCOT	102251	98596	95015	84547	82852	88304	92045	88708	92021	90001	85022
MAAC	20221	17190	18041	18778	20732	19391	19731	21715	22419	24823	26171
MAIN	1522	1005	581	314	511	526	525	832	1077	1490	1992
CMNWLTH EDISON	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
EAST MISSOURI	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
S CENT ILLINOIS	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
WIS-UPPER MICH	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
MAPP	232	348	376	372	420	431	479	519	591	585	642
NPCC	75636	76139	62153	56245	55681	53211	54169	51833	56419	60580	68383
NEW YORK	41940	42006	37064	31029	30022	30064	31138	29519	31135	31950	33983
NEW ENGLAND	33696	34133	25089	25216	25659	23147	23031	22314	25284	28630	34400
SERC	30354	26490	27490	25969	26008	28900	30219	32961	35997	35836	41227
FLORIDA	28860	25367	26588	24471	24244	26752	28160	30224	32705	32073	37309
SOUTHERN	581	288	265	332	347	347	191	168	161	140	157
TVA	26	161	24	72	39	23	52	97	112	84	118
VACAR	887	674	613	1094	1378	1778	1816	2472	3019	3539	3643
SPP	69984	62808	56197	58993	60556	65270	69098	72623	76802	86038	84182
SOUTHEAST	41434	36494	30051	32086	33326	35676	36805	39109	41678	49298	46680
WEST CENTRAL	27213	24888	24597	25293	25451	27632	29989	30926	32180	33696	33985
NORTHERN	1337	1426	1549	1614	1779	1962	2304	2588	2944	3044	3517
WSCC	72518	75719	63621	54011	56945	56533	59593	58975	65315	68267	69506
NW POOL	282	784	812	852	1130	3160	4451	4489	4460	4460	4425
ROCKY MT-AREA	299	323	324	340	346	335	395	446	615	458	345
ARIZ-N.MEX	6145	5291	4581	4017	4204	3822	3364	3688	4751	5428	5929
CALIF-SO.NEV	65792	69321-	57904	48802	51265	49216	51383	50352	55489	57921	58807
TOTAL(U.S.)	373764	359065	324174	299929	304485	313356	326659	328966	351441	368420	377925
NERC-CANADA											
MAPP	294	241	314	488	649	689	628	409	554	649	625
NPCC	2597	1563	1588	1966	2577	4577	7297	6549	6935	7361	7759
NEW BRUNSWICK	1910	1007	992	1556	1718	3693	6872	6145	6436	6712	7045
NOVA SCOTIA	677	531	569	381	830	855	396	399	491	633	672
ONTARIO	10	25	27	29	29	29	29	5	8	16	42
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	1145	1930	2932	3716	3773	3335	4095	5437	6548	6937	7220
TOTAL(CANADA)	4036	3734	4834	6170	6999	8601	12020	12395	14037	14947	15604
NERC-MEXICO											
WSCC	1302	1115	910	1150	1396	1633	1881	1899	1848	2050	2394
TOTAL(MEXICO)	1302	1115	910	1150	1396	1633	1881	1899	1848	2050	2394
NERC-TOTAL	379102	363914	329918	307249	312880	323590	340560	343260	367326	385417	395923

a) Coal-fired, gas-fired, and dual fueled(oil/gas)-fired steam, combustion turbine(and diesel) and combined cycle units.

APPENDIX B

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED ELECTRIC ENERGY PRODUCED BY OIL[a] - Millions kWh

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	729	535	535	535	615	625	635	635	635	635	635
ERCOT	631	510	503	594	592	929	930	1073	1115	1169	1194
MAAC	14305	11270	10675	11157	12132	11032	10611	11755	12423	14995	15687
MAIN	1046	703	463	222	390	398	388	655	867	1216	1629
CMNWLTH EDISON	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
EAST MISSOURI	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
S CENT ILLINOIS	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
WIS-UPPER MICH	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
MAPP	40	98	98	78	124	112	126	140	195	155	176
NPCC	54765	60788	50729	48153	50348	47930	50745	50762	55231	59339	66955
NEW YORK	25660	26906	25764	23029	24822	24864	27838	28519	30135	30950	32983
NEW ENGLAND	29105	33882	24965	25124	25526	23066	22907	22243	25096	28389	33972
SERC	14561	10049	10522	10522	11145	13042	15026	17006	19812	19654	24887
FLORIDA	13719	9406	10104	9516	9977	11547	13441	14818	17099	16529	21485
SOUTHERN	72	14	5	7	19	23	26	41	52	71	99
TVA	26	161	24	72	39	23	52	97	112	84	118
VACAR	744	468	389	927	1110	1449	1507	2050	2549	2970	3185
SPP	215	142	143	141	204	274	318	322	819	8220	7536
SOUTHEAST	119	20	0	2	1	3	6	17	494	7936	7255
WEST CENTRAL	48	36	42	47	114	177	179	178	179	179	178
NORTHERN	48	86	101	92	89	94	133	127	146	105	103
WSCC	2763	984	1584	2229	2623	3760	4165	4643	5135	5492	5862
NW POOL	9	0	0	0	0	0	229	229	229	229	229
ROCKY MT-AREA	15	61	61	60	65	62	66	68	65	82	91
ARIZ-N.MEX	75	15	2	2	2	2	8	330	492	477	489
CALIF-SO.NEV	2664	908	1521	2167	2556	3696	3862	4016	4349	4704	5053
TOTAL(U.S.)	89055	85079	75252	73631	78173	78102	82944	86991	96232	110875	124561
NERC-CANADA											
MAPP	47	39	27	26	26	22	19	18	19	20	21
NPCC	2597	1563	1588	1966	2577	4577	7297	6549	6935	7361	7759
NEW BRUNSWICK	1910	1007	992	1556	1718	3693	6872	6145	6436	6712	7045
NOVA SCOTIA	677	531	569	381	830	855	396	399	491	633	672
ONTARIO	10	25	27	29	29	29	29	5	8	16	42
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	2644	1602	1615	1992	2603	4599	7316	6567	6954	7381	7780
NERC-MEXICO											
WSCC	1302	1115	910	1150	1396	1633	1881	1899	1848	2050	2394
TOTAL(MEXICO)	1302	1115	910	1150	1396	1633	1881	1899	1848	2050	2394
NERC-TOTAL	93001	87796	77777	76773	82172	84334	92141	95457	105034	120306	134735

a) Oil-fired steam, combustion turbine(and diesel) and combined cycle units.

APPENDIX B

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED ELECTRIC ENERGY PRODUCED BY OIL-STEAM - Millions kWh

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	685	500	500	500	580	590	600	600	600	600	600
ERCOT	628	507	500	508	506	506	507	517	517	527	552
MAAC	13475	10746	10210	10713	11676	10632	10198	11252	11891	14361	14925
MAIN	1030	644	404	167	340	340	345	590	801	1151	1530
CMNWLTH EDISON	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
EAST MISSOURI	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
S CENT ILLINOIS	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
WIS-UPPER MICH	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
MAPP	23	41	42	34	52	50	51	61	74	69	75
NPCC	53738	58925	49400	46500	48705	46343	49469	50502	54863	59106	66440
NEW YORK	25401	25453	24478	21397	23223	23312	26601	28294	29846	30822	32788
NEW ENGLAND	28337	33472	24922	25103	25482	23031	22868	22208	25017	28284	33652
SERC	14017	9536	10156	10066	10622	12423	13993	15746	18282	18171	22096
FLORIDA	13292	9109	9802	9220	9623	11129	12683	13904	16072	15656	19304
SOUTHERN	43	9	3	4	4	6	1	1	0	0	0
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	682	418	351	842	995	1288	1309	1841	2210	2515	2792
SPP	191	83	70	72	142	205	227	91	523	7974	7238
SOUTHEAST	119	20	0	0	0	0	3	5	449	7910	7174
WEST CENTRAL	48	36	42	47	114	177	179	58	45	35	34
NORTHERN	24	27	28	25	28	28	45	28	29	29	30
WSCC	2552	542	411	321	316	1219	1382	1787	2265	2601	2939
NW POOL	9	0	0	0	0	0	18	18	18	18	18
ROCKY MT-AREA	14	60	60	59	64	61	65	66	62	80	90
ARIZ-N.MEX	39	12	0	0	0	0	6	253	415	400	412
CALIF-SO.NEV	2490	470	351	262	252	1158	1293	1450	1770	2103	2419
TOTAL(U.S.)	86339	81524	71693	68881	72939	72308	76772	81146	89816	104560	116395
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	2585	1538	1561	1937	2548	4548	7268	6544	6927	7345	7717
NEW BRUNSWICK	1910	1007	992	1556	1718	3693	6872	6145	6436	6712	7045
NOVA SCOTIA	675	531	569	381	830	855	396	399	491	633	672
ONTARIO	0	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	2585	1538	1561	1937	2548	4548	7268	6544	6927	7345	7717
NERC-MEXICO											
WSCC	1208	1071	867	1106	1352	1589	1837	1855	1804	2006	2350
TOTAL(MEXICO)	1208	1071	867	1106	1352	1589	1837	1855	1804	2006	2350
NERC-TOTAL	90132	84133	74121	71924	76839	78445	85877	89545	98547	113911	126462

APPENDIX B

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED ELECTRIC ENERGY PRODUCED BY OIL-COMBUSTION TURBINE[a] - Millions kWh

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	31	25	25	25	25	25	25	25	25	25	25
ERCOT	3	3	3	86	86	423	423	556	598	642	642
MAAC	510	469	393	378	351	316	334	365	373	459	572
MAIN	16	58	58	54	49	57	42	64	65	64	98
CMNWLTH EDISON	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
EAST MISSOURI	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
S CENT ILLINOIS	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
WIS-UPPER MICH	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
MAPP	17	57	56	44	72	62	75	79	121	86	101
NPCC	817	1540	1311	1649	1624	1574	1261	248	329	181	270
NEW YORK	259	1453	1286	1632	1599	1552	1237	225	289	128	195
NEW ENGLAND	558	87	25	17	25	22	24	23	40	53	75
SERC	534	488	350	418	471	592	983	1175	1354	1220	1494
FLORIDA	417	272	286	258	302	391	708	829	1010	835	1083
SOUTHERN	29	5	2	3	15	17	25	40	52	71	99
TVA	26	161	24	72	39	23	52	97	112	84	118
VACAR	62	50	38	85	115	161	198	209	180	230	194
SPP	24	59	73	69	62	69	91	231	296	246	298
SOUTHEAST	0	0	0	2	1	3	3	12	45	26	81
WEST CENTRAL	0	0	0	0	0	0	0	120	134	144	144
NORTHERN	24	59	73	67	61	66	88	99	117	76	73
WSCC	124	436	1168	1902	2302	2536	2778	2851	2865	2880	2911
NW POOL	0	0	0	0	0	0	211	211	211	211	211
ROCKY MT-AREA	1	1	1	1	1	1	1	2	3	2	1
ARIZ-N.MEX	6	3	2	2	2	2	2	77	77	77	77
CALIF-SO.NEV	117	432	1165	1899	2299	2533	2564	2561	2574	2590	2622
TOTAL(U.S.)	2076	3135	3437	4625	5042	5654	6012	5594	6026	5803	6411
NERC-CANADA											
MAPP	47	39	27	26	26	22	19	18	19	20	21
NPCC	12	25	27	29	29	29	29	5	8	16	42
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	2	0	0	0	0	0	0	0	0	0	0
ONTARIO	10	25	27	29	29	29	29	5	8	16	42
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	59	64	54	55	55	51	48	23	27	36	63
NERC-MEXICO											
WSCC	94	44	43	44	44	44	44	44	44	44	44
TOTAL(MEXICO)	94	44	43	44	44	44	44	44	44	44	44
NERC-TOTAL	2229	3243	3534	4724	5141	5749	6104	5661	6097	5883	6518

a) Includes diesel units.

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED ELECTRIC ENERGY PRODUCED BY OIL-COMBINED CYCLE - Millions kWh

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	13	10	10	10	10	10	10	10	10	10	10
ERCOT	0	0	0	0	0	0	0	0	0	0	0
MAAC	320	55	72	66	105	84	79	138	159	175	190
MAIN	0	1	1	1	1	1	1	1	1	1	1
CMNWLTH EDISON	- -	- -	- -	- -	- -	- -	- -	- -	- -	-	- -
EAST MISSOURI	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
S CENT ILLINOIS	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
WIS-UPPER MICH	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	210	323	18	4	19	13	15	12	39	52	245
NEW YORK	0	0	0	0	0	0	0	0	0	0	0
NEW ENGLAND	210	323	18	4	19	13	15	12	39	52	245
SERC	10	25	16	38	52	27	50	85	176	263	1297
FLORIDA	10	25	16	38	52	27	50	85	17	38	1098
SOUTHERN	0	0	0	0	0	0	0	0	0	0	0
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	0	0	0	0	0	0	0	0	159	225	199
SPP	0	0	0	0	0	0	0	0	0	0	0
SOUTHEAST	0	0	0	0	0	0	0	0	0	0	0
WEST CENTRAL	0	0	0	0	0	0	0	0	0	0	0
NORTHERN	0	0	0	0	0	0	0	0	0	0	0
WSCC	87	6	5	6	5	5	5	5	5	11	12
NW POOL	0	0	0	0	0	0	0	0	0	0	0
ROCKY MT-AREA	0	0	0	0	0	0	0	0	0	0	0
ARIZ-N.MEX	30	0	0	0	0	0	0	0	0	0	0
CALIF-SO.NEV	57	6	5	6	5	5	5	5	5	11	12
TOTAL(U.S.)	640	420	122	125	192	140	160	251	390	512	1755
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	0	0	0	0	0	0	0	0	0	0	0
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	640	420	122	125	192	140	160	251	390	512	1755

APPENDIX B

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED ELECTRIC ENERGY PRODUCED BY GAS[a]- Millions kWh

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	317	235	165	165	165	165	165	165	165	165	165
ERCOT	101620	98086	94512	83953	82260	87375	91115	87635	90906	88832	83828
MAAC	5916	5920	7366	7621	8600	8359	9120	9960	9996	9828	10484
MAIN	476	302	119	92	121	128	137	127	210	274	363
CMNWLTH EDISON	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
EAST MISSOURI	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
S CENT ILLINOIS	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
WIS-UPPER MICH	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
MAPP	192	250	278	294	296	319	353	379	396	430	466
NPCC	20871	15351	11424	8092	5333	5281	3424	1071	1188	1241	1428
NEW YORK	16280	15100	11300	8000	5200	5200	3300	1000	1000	1000	1000
NEW ENGLAND	4591	251	124	92	133	81	124	71	188	241	428
SERC	15793	16441	16968	15447	14863	15858	15193	15955	16185	16182	16340
FLORIDA	15141	15961	16484	14955	14267	15205	14719	15406	15606	15544	15824
SOUTHERN	509	274	260	325	328	324	165	127	109	69	58
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	143	206	224	167	268	329	309	422	470	569	458
SPP	69769	62666	56054	58852	60352	64996	68780	72301	75983	77818	76646
SOUTHEAST	41315	36474	30051	32084	33325	35673	36799	39092	41184	41362	39425
WEST CENTRAL	27165	24852	24555	25246	25337	27455	29810	30748	32001	33517	33807
NORTHERN	1289	1340	1448	1522	1690	1868	2171	2461	2798	2939	3414
WSCC	69755	74735	62037	51782	54322	52773	55428	54332	60180	62775	63644
NW POOL	273	784	812	852	1130	3160	4222	4260	4231	4231	4196
ROCKY MT-AREA	284	262	263	280	281	273	329	378	550	376	254
ARIZ-N.MEX	6070	5276	4579	4015	4202	3820	3356	3358	4259	4951	5440
CALIF-SO.NEV	63128	68413	56383	46635	48709	45520	47521	46336	51140	53217	53754
TOTAL(U.S.)	284709	273986	248922	226298	226312	235254	243715	241975	255209	257545	253364
NERC-CANADA											
MAPP	247	202	287	462	623	667	609	391	535	629	604
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	1145	1930	2932	3716	3773	3335	4095	5437	6548	6937	7220
TOTAL(CANADA)	1392	2132	3219	4178	4396	4002	4704	5828	7083	7566	7824
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	286101	276118	252141	230476	230708	239256	248419	247803	262292	265111	261188

a) Gas-fired steam, combustion turbine(and diesel) and combined cycle units.

APPENDIX B

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED ELECTRIC ENERGY PRODUCED BY GAS-STEAM - Millions kWh

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	271	210	140	140	140	140	140	140	140	140	140
ERCOT	97257	93940	90923	79986	78642	83189	86680	83384	86043	83644	78800
MAAC	4685	4462	5935	6431	7099	7117	7879	8142	7958	7519	7936
MAIN	437	200	52	61	72	61	71	82	81	118	123
CMNWLTH EDISON	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
EAST MISSOURI	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
S CENT ILLINOIS	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
WIS-UPPER MICH	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
MAPP	133	164	181	189	200	208	222	243	239	252	279
NPCC	20108	14913	11200	7950	5200	5200	3300	1000	1000	1000	1000
NEW YORK	15950	14900	11200	7950	5200	5200	3300	1000	1000	1000	1000
NEW ENGLAND	4158	13	0	0	0	0	0	0	0	0	0
SERC	13290	13268	13666	12978	12046	12689	12280	12868	12782	12919	9369
FLORIDA	12888	13070	13462	12745	11738	12337	11881	12386	12346	12469	8961
SOUTHERN	280	36	32	95	89	85	162	125	107	67	56
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	122	162	172	138	219	267	237	357	329	383	352
SPP	67220	59381	51943	54902	56502	61076	64622	68091	71547	73199	72039
SOUTHEAST	41311	36386	30019	32040	33294	35645	36763	39044	41073	41288	39370
WEST CENTRAL	24659	21713	20544	21426	21630	23706	25885	26797	27980	29177	29485
NORTHERN	1251	1282	1380	1436	1578	1725	1974	2250	2574	2734	3184
WSCC	65530	68645	56252	46182	48611	44910	46676	45666	51146	53396	54268
NW POOL	266	784	812	852	1130	1095	1121	1142	1130	1130	1095
ROCKY MT-AREA	260	256	258	275	278	264	296	334	421	298	233
ARIZ-N.MEX	3597	3575	3219	2889	2983	2525	2224	2346	2946	3364	3820
CALIF-SO.NEV	61407	64030	51963	42166	44220	41026	43035	41844	46649	48604	49120
TOTAL(U.S.)	268931	255183	230292	208819	208512	214590	221870	219616	230936	232387	223954
NERC-CANADA											
MAPP	201	155	214	320	411	438	404	247	341	387	387
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	557	1212	2449	3099	3149	2524	3346	4692	5780	6160	6420
TOTAL(CANADA)	758	1367	2663	3419	3560	2962	3750	4939	6121	6547	6807
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	269689	256550	232955	212238	212072	217552	225620	224555	237057	238934	230761

APPENDIX B

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED ELECTRIC ENERGY PRODUCED BY GAS-COMBUSTION TURBINE[a] - Millions kWh

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	46	25	25	25	25	25	25	25	25	25	25
ERCOT	331	33	22	159	149	512	542	732	1166	1183	1343
MAAC	642	967	787	597	555	488	529	578	607	738	839
MAIN	39	102	66	31	49	67	66	95	129	156	240
CMNWLTH EDISON	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
EAST MISSOURI	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
S CENT ILLINOIS	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
WIS-UPPER MICH	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
MAPP	58	74	96	97	94	108	125	132	151	167	181
NPCC	349	201	100	50	0	0	0	0	0	0	0
NEW YORK	330	200	100	50	0	0	0	0	0	0	0
NEW ENGLAND	19	1	0	0	0	0	0	0	0	0	0
SERC	470	474	492	434	482	498	261	264	304	387	301
FLORIDA	220	195	222	180	197	211	210	223	240	247	257
SOUTHERN	229	238	228	230	239	239	3	2	2	2	2
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	21	41	42	24	46	48	48	39	62	138	42
SPP	73	98	84	95	112	149	212	251	341	497	794
SOUTHEAST	4	54	26	27	27	21	27	30	23	30	25
WEST CENTRAL	57	3	5	1	3	16	22	36	121	287	569
NORTHERN	12	41	53	67	82	112	163	185	197	180	200
WSCC	393	680	688	647	693	1312	1295	1301	1418	1398	1409
NW POOL	7	0	0	0	0	596	596	597	596	596	596
ROCKY MT-AREA	24	6	5	5	3	9	33	44	129	78	21
ARIZ-N.MEX	285	200	168	80	106	115	83	73	109	134	181
CALIF-SO.NEV	77	474	515	562	584	592	583	587	584	590	611
TOTAL(U.S.)	2401	2654	2360	2135	2159	3159	3055	3378	4141	4551	5132
NERC-CANADA											
MAPP	46	47	73	142	212	229	205	144	194	242	217
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	588	718	483	617	624	811	749	745	768	777	800
TOTAL(CANADA)	634	765	556	759	836	1040	954	889	962	1019	1017
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	3035	3419	2916	2894	2995	4199	4009	4267	5103	5570	6149

a) Includes diesel units.

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED ELECTRIC ENERGY PRODUCED BY GAS-COMBINED CYCLE - Millions kWh

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	0	0	0	0	0	0	0	0	0	0	0
ERCOT	4032	4113	3567	3808	3469	3674	3893	3519	3697	3805	3685
MAAC	585	491	644	593	946	754	712	1240	1431	1571	1709
MAIN	0	0	0	0	0	0	0	0	0	0	0
CMNWLTH EDISON	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
EAST MISSOURI	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
S CENT ILLINOIS	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
WIS-UPPER MICH	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
MAPP	1	12	1	8	2	3	6	4	6	11	6
NPCC	414	237	124	92	133	81	124	71	188	241	428
NEW YORK	0	0	0	0	0	0	0	0	0	0	0
NEW ENGLAND	414	237	124	92	133	81	124	71	188	241	428
SERC	2033	2699	2810	2035	2335	2671	2652	2823	3099	2876	6670
FLORIDA	2033	2696	2800	2030	2332	2657	2628	2797	3020	2828	6606
SOUTHERN	0	0	0	0	0	0	0	0	0	0	0
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	0	3	10	5	3	14	24	26	79	48	64
SPP	2476	3187	4027	3855	3738	3771	3946	3959	4095	4122	3813
SOUTHEAST	0	34	6	17	4	7	9	18	88	44	30
WEST CENTRAL	2450	3136	4006	3819	3704	3733	3903	3915	3980	4053	3753
NORTHERN	26	17	15	19	30	31	34	26	27	25	30
WSCC	3832	5410	5097	4953	5018	6551	7457	7365	7616	7981	7967
NW POOL	0	0	0	0	0	1469	2505	2521	2505	2505	2505
ROCKY MT-AREA	0	0	0	0	0	0	0	0	0	0	0
ARIZ-N.MEX	2188	1501	1192	1046	1113	1180	1049	939	1204	1453	1439
CALIF-SO.NEV	1644	3909	3905	3907	3905	3902	3903	3905	3907	4023	4023
TOTAL(U.S.)	13377	16149	16270	15344	15641	17505	18790	18981	20132	20607	24278
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	0	0	0	0	0	0	0	0	0	0	0
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	13377	16149	16270	15344	15641	17505	18790	18981	20132	20607	24278

APPENDIX B

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED ELECTRIC ENERGY PRODUCED BY GEOTHERMAL - Millions kWh

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	0	0	0	0	0	0	0	0	0	0	0
ERCOT	0	0	0	0	0	0	0	0	0	0	0
MAAC	0	0	0	0	0	0	0	0	0	0	0
MAIN	0	0	0	0	0	0	0	0	0	0	0
CMNWLTH EDISON	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
EAST MISSOURI	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
S CENT ILLINOIS	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
WIS-UPPER MICH	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW YORK	0	0	0	0	0	0	0	0	0	0	0
NEW ENGLAND	0	0	0	0	0	0	0	0	0	0	0
SERC	0	0	0	0	0	0	0	0	0	0	0
FLORIDA	0	0	0	0	0	0	0	0	0	0	0
SOUTHERN	0	0	0	0	0	0	0	0	0	0	0
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	0	0	0	0	0	0	0	0	0	0	0
SPP	0	0	0	0	0	0	0	0	0	0	0
SOUTHEAST	0	0	0	0	0	0	0	0	0	0	0
WEST CENTRAL	0	0	0	0	0	0	0	0	0	0	0
NORTHERN	0	0	0	0	0	0	0	0	0	0	0
WSCC	11061	12997	13550	14698	16241	16816	17488	17945	18184	18422	19925
NW POOL	101	120	120	133	174	258	609	1002	1030	1090	1450
ROCKY MT-AREA	0	0	0	0	0	0	0	0	0	0	0
ARIZ-N.MEX	14	43	43	42	42	42	42	42	42	42	42
CALIF-SO.NEV	10946	12834	13387	14523	16025	16516	16837	16901	17112	17290	18433
TOTAL(U.S.)	11061	12997	13550	14698	16241	16816	17488	17945	18184	18422	19925
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	0	0	0	0	0	0	0	0	0	0	0
NERC-MEXICO											
WSCC	1352	2854	4059	4182	4182	4182	4182	4422	4802	4922	4924
TOTAL(MEXICO)	1352	2854	4059	4182	4182	4182	4182	4422	4802	4922	4924
NERC-TOTAL	12413	15851	17609	18880	20423	20998	21670	22367	22986	23344	24849

APPENDIX B

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED ELECTRIC ENERGY PRODUCED BY ALL OTHER FUELS - Millions kWh

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	0	0	0	0	0	0	0	0	0	0	0
ERCOT[a]	0	0	0	9	91	322	433	587	657	662	672
MAAC[b]	1079	892	1848	3082	4157	5642	5688	5727	5881	5911	5931
MAIN	7	479	582	672	739	812	899	972	1023	1072	1130
CMNWLTH EDISON	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
EAST MISSOURI	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
S CENT ILLINOIS	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
WIS-UPPER MICH	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
MAPP[c]	80	79	204	560	781	778	786	792	771	818	790
NPCC[d,e]	1871	3302	7564	11001	12845	16244	16751	18007	18234	18649	19702
NEW YORK[d]	969	1315	2020	2675	2979	5957	6341	7354	7484	7942	8394
NEW ENGLAND[e]	902	1987	5544	8326	9866	10287	10410	10653	10750	10707	11308
SERC[d,f,g,h]	2910	3542	5591	7525	7780	8047	8210	8305	11108	11058	13173
FLORIDA[f]	1100	1505	2148	3269	3743	4397	4530	4602	7381	7336	9406
SOUTHERN[g]	678	475	1430	1605	800	0	0	0	0	0	0
TVA[h]	556	672	657	662	659	657	659	664	668	664	671
VACAR	576	890	1356	1989	2578	2993	3021	3039	3059	3068	3096
SPP	787	840	1337	1381	1381	1384	1392	1337	1391	1441	1764
SOUTHEAST	487	414	414	414	414	414	414	414	414	414	414
WEST CENTRAL	300	426	923	967	967	970	978	923	977	1027	1350
NORTHERN	0	0	0	0	0	0	0	0	0	0	0
WSCC[i]	7463	13262	19554	27295	30586	36166	38209	46995	54278	62941	66531
NW POOL[i]	1284	1144	1329	1615	1612	1612	2052	4854	11864	17221	18327
ROCKY MT-AREA	10	27	218	271	288	335	390	455	532	595	656
ARIZ-N.MEX	9	0	0	0	0	0	0	0	0	0	0
CALIF-SO.NEV	6160	12091	18007	25409	28686	34219	35767	41686	41882	45125	47548
TOTAL(U.S.)	14197	22396	36680	51525	58360	69395	72368	82722	93343	102552	109693
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	23	50	50	50	50	50	50	680	890	1113	1326
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	23	50	50	50	50	50	50	50	50	50	50
ONTARIO	0	0	0	0	0	0	0	630	840	1063	1276
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	509	0	0	27	57	126	216	315	414	1281	2139
TOTAL(CANADA)	532	50	50	77	107	176	266	995	1304	2394	3465
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	14729	22446	36730	51602	58467	69571	72634	83717	94647	104946	113158

a) Refuse and undesignated. b) Includes Bethlehem Steel, Delaware City Units 1,2 and 3 (RG,PC and oil), and cogeneration.
c) Steam units using wood and refuse derived fuel. d) Includes independent power producers.
e) Wood and customer generation. f) Includes cogeneration, coal-oil mix, alternate fuel and refuse.
g) Energy from units which are producing but not in commercial operation. h) Includes cogeneration.
i) The Northwest Power Pool(U.S.) is projecting a deficiency for 1991-1995 based on planned resources, assumed adverse hydro conditions and the forecast energy requirements. To cover this deficiency, included are imports that would be necessary from systems outside the NWPP(U.S) from 1991 on: 440, 3239, 10252, 15609 and 16715 millions kWh.

APPENDIX B

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED ELECTRIC ENERGY REQUIREMENTS (LOAD) FOR PUMPED STORAGE - Millions kWh

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	2376	3300	3300	3300	3300	3300	3300	3300	3300	3300	3300
ERCOT	0	0	0	0	0	0	0	0	0	0	0
MAAC	2626	1777	2110	1910	1922	2085	2217	2152	2227	2330	2353
MAIN	41	24	47	41	14	75	72	75	67	64	133
CMNWLTH EDISON	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
EAST MISSOURI	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
S CENT ILLINOIS	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
WIS-UPPER MICH	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	4742	3126	3985	3903	3684	4034	4390	4208	4261	3901	4071
NEW YORK	2969	1006	1359	988	864	1051	1368	1203	1324	811	687
NEW ENGLAND	1773	2120	2626	2915	2820	2983	3022	3005	2937	3090	3384
SERC	4633	5382	4928	5745	5652	5673	5981	6235	6718	6867	7150
FLORIDA	0	0	0	0	0	0	0	0	0	0	0
SOUTHERN	423	669	669	669	669	669	520	491	585	535	571
TVA	1867	1344	1082	1577	1340	1282	1352	1501	1547	1546	1662
VACAR	2343	3369	3177	3499	3643	3722	4109	4243	4586	4786	4917
SPP	90	96	96	96	96	96	96	96	96	96	96
SOUTHEAST	0	0	0	0	0	0	0	0	0	0	0
WEST CENTRAL	90	96	96	96	96	96	96	96	96	96	96
NORTHERN	0	0	0	0	0	0	0	0	0	0	0
WSCC	1734	3027	2719	2813	2721	3025	3009	3074	3376	3737	4393
NW POOL	0	0	0	0	0	0	0	0	0	0	0
ROCKY MT-AREA	276	930	948	932	932	946	1006	1044	1088	1074	1028
ARIZ-N MEX	248	291	243	244	244	230	216	239	241	297	301
CALIF-SO NEV	1210	1806	1528	1637	1545	1849	1787	1791	2047	2366	3064
TOTAL(U.S.)	16242	16732	17185	17808	17389	18288	19065	19140	20045	20295	21496
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	92	0	0	0	0	0	0	0	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	92	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	92	0	0	0	0	0	0	0	0	0	0
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	16334	16732	17185	17808	17389	18288	19065	19140	20045	20295	21496

APPENDIX B

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
ACTUAL AND PROJECTED ELECTRIC ENERGY PRODUCED (OUTPUT) BY PUMPED STORAGE - Millions kWh

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	1801	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
ERCOT	0	0	0	0	0	0	0	0	0	0	0
MAAC	1825	1215	1445	1308	1316	1429	1520	1475	1527	1597	1612
MAIN	12	14	24	23	7	41	39	40	35	33	70
CMNWLTH EDISON	- -	- -	- -	- -	- -	- -	- -	- -	-	- -	- -
EAST MISSOURI	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
S CENT ILLINOIS	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
WIS-UPPER MICH	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	3253	2207	2800	2746	2592	2839	3089	2959	2998	2748	2870
NEW YORK	1986	704	952	691	605	735	958	842	927	568	481
NEW ENGLAND	1267	1503	1848	2055	1987	2104	2131	2117	2071	2180	2389
SERC	3612	4201	3847	4485	4428	4439	4634	4833	5178	5306	5521
FLORIDA	0	0	0	0	0	0	0	0	0	0	0
SOUTHERN	375	503	503	503	503	503	351	331	394	361	385
TVA	1467	1033	838	1221	1038	993	1047	1162	1196	1197	1287
VACAR	1770	2665	2506	2761	2887	2943	3236	3340	3588	3748	3849
SPP	44	50	50	50	50	50	50	50	50	50	50
SOUTHEAST	0	0	0	0	0	0	0	0	0	0	0
WEST CENTRAL	44	50	50	50	50	50	50	50	50	50	50
NORTHERN	0	0	0	0	0	0	0	0	0	0	0
WSCC[a]	3289	5512	5277	5355	5287	5470	5474	5595	5676	5918	6304
NW POOL	0	0	0	0	0	0	0	0	0	0	0
ROCKY MT-AREA	187	741	750	764	764	778	838	976	920	906	860
ARIZ-N.MEX	172	204	170	171	157	161	151	167	169	208	211
CALIF-SO NEV	2930	4567	4357	4420	4366	4531	4485	4452	4587	4804	5233
TOTAL(U.S.)	13836	15549	15793	16317	16030	16618	17156	17202	17814	18002	18777
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	0	0	0	0	0	0	0	0	0	0	0
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	13836	15549	15793	16317	16030	16618	17156	17202	17814	18002	18777

a) Pumped storage generation (output) is greater than pumped storage load (input) due to pumped storage facilities being in combination with California reservoirs.

APPENDIX C

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
REGIONAL FOSSIL FUEL REQUIREMENTS FOR ELECTRIC ENERGY PRODUCTION
WESTERN LIGNITE[a] (STEAM) - 1000's TONS

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR[b]	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
ERCOT	35551	38634	41679	45459	45538	46064	49949	57289	64691	72310	77575
MAAC	0	0	0	0	0	0	0	0	0	0	0
MAIN	0	0	0	0	0	0	0	0	0	0	0
CMNWLTH EDISON	0	0	0	0	0	0	0	0	0	0	0
EAST MISSOURI	0	0	0	0	0	0	0	0	0	0	0
S CENT ILLINOIS	0	0	0	0	0	0	0	0	0	0	0
WIS-UPPER MICH	0	0	0	0	0	0	0	0	0	0	0
MAPP	15988	16610	16584	16914	17341	17478	14954	16187	17061	17241	18835
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW YORK	0	0	0	0	0	0	0	0	0	0	0
NEW ENGLAND	0	0	0	0	0	0	0	0	0	0	0
SERC	0	0	0	0	0	0	0	0	0	0	0
FLORIDA	0	0	0	0	0	0	0	0	0	0	0
SOUTHERN	0	0	0	0	0	0	0	0	0	0	0
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	0	0	0	0	0	0	0	0	0	0	0
SPP	2497	4227	5086	4925	5146	5138	5040	4925	5146	5194	5722
SOUTHEAST	6	957	1315	1375	1375	1375	1375	1375	1375	1375	1375
WEST CENTRAL	2491	3270	3771	3550	3771	3763	3665	3550	3771	3819	4347
NORTHERN	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
NW POOL	0	0	0	0	0	0	0	0	0	0	0
ROCKY MT AREA	0	0	0	0	0	0	0	0	0	0	0
ARIZ-N.MEX	0	0	0	0	0	0	0	0	0	0	0
CALIF-SO.NEV	0	0	0	0	0	0	0	0	0	0	0
TOTAL(U.S.)	54036	59471	63349	67298	68025	68680	69943	78401	86898	94745	102132
NERC-CANADA											
MAPP	9344	7737	8101	8602	8861	8993	9255	9504	9616	9842	10103
NPCC	913	1097	1101	1097	1097	1092	1102	800	600	600	600
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	913	1097	1101	1097	1097	1092	1102	800	600	600	600
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	10257	8834	9202	9699	9958	10085	10357	10304	10216	10442	10703
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	64293	68305	72551	76997	77983	78765	80300	88705	97114	105187	112835

a) Coal mined west of the Mississippi River.

b) Coal sources indeterminate for ECAR. See Table 24 for ECAR total coal figures.

APPENDIX C

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
REGIONAL FOSSIL FUEL REQUIREMENTS FOR ELECTRIC ENERGY PRODUCTION
WESTERN COAL[a] (STEAM) - 1000 s TONS

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR[b]	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
ERCOT	20610	18159	17754	17169	18640	18800	18614	19056	19055	20995	24994
MAAC	0	0	0	0	0	0	0	0	0	0	0
MAIN	19998	20644	19800	17765	18342	18286	18409	18966	19451	19782	20433
CMNWLTH EDISON	10864	10960	9120	6980	7460	7350	7320	7800	8220	8440	9020
EAST MISSOURI	223	228	178	168	148	188	163	163	178	180	173
S CENT ILLINOIS	468	0	0	0	0	0	0	0	0	0	0
WIS-UPPER MICH	8443	9456	10502	10617	10734	10748	10926	11003	11053	11162	11240
MAPP	33561	29857	29718	31924	31737	32813	32875	32423	33229	33813	33234
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW YORK	0	0	0	0	0	0	0	0	0	0	0
NEW ENGLAND	0	0	0	0	0	0	0	0	0	0	0
SERC	1693	1600	1600	1609	1600	1601	1595	1594	1593	1592	1200
FLORIDA	0	0	0	0	0	0	0	0	0	0	0
SOUTHERN	1693	1600	1600	1609	1600	1601	1595	1594	1593	1592	1200
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	0	0	0	0	0	0	0	0	0	0	0
SPP	71172	62169	63546	65068	65245	66464	67110	68345	69740	70956	74564
SOUTHEAST	22770	16420	16708	17275	16176	16340	16452	16370	17276	17329	19827
WEST CENTRAL	25476	24577	24668	25064	25954	26546	26753	27480	27842	28484	29149
NORTHERN	22926	21172	22170	22729	23115	23578	23905	24495	24622	25143	25588
WSCC	83417	85109	90384	96042	100018	100461	102314	103538	104492	106897	108235
NW POOL	33110	30299	32936	37190	40783	40956	41144	41339	41409	41340	41343
ROCKY MT-AREA	15267	16691	17524	18036	18851	19377	19971	20207	20433	21329	21906
ARIZ-N.MEX	22425	21943	22317	21755	22534	23323	24633	25232	25655	25884	26681
CALIF-SO NEV	12615	16176	17607	19061	17850	16805	16566	16760	16995	18344	18305
TOTAL(U.S.)	230451	217538	222802	229577	235582	238425	240917	243922	247560	254025	62660
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	2550	2182	2039	1871	1675	2154	2337	2500	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	2550	2182	2039	1871	1675	2154	2337	2500	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	18461	19126	19680	20178	20828	21969	23133	24095	24937	25966	26712
TOTAL(CANADA)	21011	21308	21719	22049	22503	24123	25470	26595	24937	25866	26712
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	251462	238846	244521	251626	258085	262548	266387	270517	272497	279891	289372

a) Coal mined west of the Mississippi River.
b) Coal sources indeterminate for ECAR. See Table 24 for ECAR total coal figures.

APPENDIX C

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
REGIONAL FOSSIL FUEL REQUIREMENTS FOR ELECTRIC ENERGY PRODUCTION
OTHER COAL (STEAM) - 1000's TONS

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR[a]	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
ERCOT	0	0	0	0	0	0	0	0	0	0	0
MAAC	38936	38433	38454	37478	38360	37961	38654	39499	40020	40875	41861
MAIN	35404	35624	34171	34279	34616	35578	35880	36236	37108	37119	37816
CMNWLTH EDISON	2704	2700	2270	1980	2050	2120	1960	2020	2230	2280	2330
EAST MISSOURI	9932	10430	10956	10523	11302	11067	11051	11475	11608	11351	12049
S CENT ILLINOIS	15826	15472	14156	14113	14089	14810	15031	14532	14869	15010	14474
WIS-UPPER MICH	6940	7022	6789	7663	7175	7581	7838	8209	8401	8478	8963
MAPP	6853	6159	6111	6070	6067	6196	6326	6358	6436	6462	6367
NPCC	15007	15457	16342	17115	16890	16486	16156	16927	17410	17757	17926
NEW YORK	9794	9122	10247	11206	11186	10848	10803	11302	11441	11710	11921
NEW ENGLAND	5213	6335	6095	5909	5704	5638	5353	5625	5969	6047	6005
SERC	133595	129916	124951	124564	126068	126690	133376	134961	136005	136552	137047
FLORIDA	14227	15332	16918	17921	19723	19434	19931	20090	20348	20500	20781
SOUTHERN	51075	49067	45952	44942	44240	44458	47419	47264	45701	45109	45188
TVA	32768	29636	27296	27592	26722	25918	27255	28572	28359	26712	27426
VACAR	35525	35881	34785	34109	35383	36880	38771	39035	41597	44231	43652
SPP	3472	4100	4537	4870	4893	4931	5114	5162	5284	5371	5319
SOUTHEAST	0	0	0	0	0	0	0	0	0	0	0
WEST CENTRAL	0	69	372	392	393	402	406	372	406	425	508
NORTHERN	3472	4031	4165	4478	4500	4529	4708	4790	4878	4946	4811
WSCC	0	0	0	0	0	0	0	0	0	0	0
NW POOL	0	0	0	0	0	0	0	0	0	0	0
ROCKY MT-AREA	0	0	0	0	0	0	0	0	0	0	0
ARIZ-N.MEX	0	0	0	0	0	0	0	0	0	0	0
CALIF-SO NEV	0	0	0	0	0	0	0	0	0	0	0
TOTAL(U.S.)	233267	229689	224566	224376	226894	227842	235506	239143	242263	244136	246336
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	11340	8462	7481	6451	5409	6145	6971	6493	9320	9548	10980
NEW BRUNSWICK	575	461	552	548	572	697	846	826	829	832	834
NOVA SCOTIA	2153	2118	2213	2323	2355	2444	2965	3127	3251	3346	3476
ONTARIO	8612	5883	4716	3580	2482	3004	3160	2540	5240	5370	6670
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	11340	8462	7481	6451	5409	6145	6971	6493	9320	9548	10980
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	244607	238151	232047	230827	232303	233987	242477	245636	251583	253684	257316

a) Coal sources indeterminate for ECAR. See Table 24 for ECAR total coal figures.

APPENDIX C

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
REGIONAL FOSSIL FUEL REQUIREMENTS FOR ELECTRIC ENERGY PRODUCTION
TOTAL DISTILLATE OIL[a,b] – 1000's BARRELS

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	2199	2195	2195	2195	2195	2445	2495	2495	2495	2495	2495
ERCOT	617	807	806	1003	1004	1731	1776	2078	2209	2379	2550
MAAC	3219	1300	1145	1117	1126	1019	1057	1231	1283	1486	1774
MAIN	679	497	454	525	538	561	520	588	532	531	692
CMNWLTH EDISON	269	30	20	10	20	10	10	20	30	50	100
EAST MISSOURI	90	214	206	208	219	260	211	284	208	203	306
S CENT ILLINOIS	108	80	81	83	93	87	99	92	90	92	90
WIS-UPPER MICH	212	173	147	224	206	204	200	192	204	186	196
MAPP	259	492	399	445	559	491	514	521	734	554	577
NPCC	1493	4311	3519	4354	4271	4135	3420	1048	1278	950	1372
NEW YORK	553	3467	3249	4103	3999	3891	3175	811	968	578	720
NEW ENGLAND	940	844	270	251	272	244	245	237	310	372	652
SERC	3075	2945	2575	2775	2953	3282	4156	4564	4917	4971	5584
FLORIDA	1441	1067	1009	1023	1111	1316	1742	2004	2348	2223	2701
SOUTHERN	389	359	359	363	421	436	426	396	433	482	550
TVA	381	677	349	458	375	331	409	523	555	473	557
VACAR	864	842	858	931	1046	1199	1579	1641	1581	1793	1776
SPP	488	460	467	496	563	583	605	779	1442	1575	1230
SOUTHEAST	61	79	77	86	88	88	87	110	755	894	545
WEST CENTRAL	132	92	92	96	160	165	167	332	340	340	339
NORTHERN	295	289	298	314	315	330	351	337	347	341	346
WSCC	404	492	490	449	452	452	916	920	923	929	934
NW POOL	0	0	0	0	0	0	461	461	461	461	461
ROCKY MT-AREA	25	2	2	2	2	2	2	3	3	3	2
ARIZ-N.MEX	86	8	6	5	5	5	5	5	5	5	5
CALIF-SO.NEV	293	482	482	442	445	445	448	451	454	460	466
TOTAL(U.S.)	12433	13499	12050	13359	13661	14699	15459	14224	15813	15870	17208
NERC-CANADA											
MAPP	3681	3172	2272	2172	2172	1872	1672	1572	1672	1672	1772
NPCC	283	346	342	324	312	330	390	361	366	368	376
NEW BRUNSWICK	34	0	0	0	0	2	45	16	20	23	27
NOVA SCOTIA	20	65	76	69	79	80	89	95	96	95	99
ONTARIO	229	281	266	255	233	248	256	250	250	250	250
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	3964	3518	2614	2496	2484	2202	2062	1933	2038	2040	2148
NERC-MEXICO											
WSCC	276	132	129	128	128	128	128	128	128	128	128
TOTAL(MEXICO)	276	132	129	128	128	128	128	128	128	128	128
NERC-TOTAL	16673	17149	14793	15983	16273	17029	17649	16285	17979	18038	19484

a) Includes #1 and #2 oil, kerosene and jet fuel.
b) Used in steam, combustion turbine(and diesel), and combined cycle units and coal-burning plants for start-up and flame stabilization.

APPENDIX C
NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
REGIONAL FOSSIL FUEL REQUIREMENTS FOR ELECTRIC ENERGY PRODUCTION
DISTILLATE OIL[a] (STEAM) - 1000's BARRELS

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	2031	2000	2000	2000	2000	2250	2250	2250	2250	2250	2250
ERCOT	616	807	806	822	824	820	865	879	919	993	1164
MAAC	1579	218	208	205	210	209	215	217	221	222	254
MAIN	622	403	383	392	417	434	413	435	380	377	441
CMNWLTH EDISON	239	0	0	0	0	0	0	0	0	0	0
EAST MISSOURI	83	169	172	177	185	217	181	210	176	174	240
S CENT ILLINOIS	104	80	81	83	93	84	96	89	87	86	84
WIS-UPPER MICH	196	154	130	132	139	133	136	136	117	117	117
MAPP	232	450	351	364	486	413	418	424	609	422	399
NPCC	201	286	218	220	223	202	200	195	219	247	292
NEW YORK	0	0	0	0	0	0	0	0	0	0	0
NEW ENGLAND	201	286	218	220	223	202	200	195	219	247	292
SERC	1301	1315	1313	1318	1326	1339	1525	1487	1548	1491	1567
FLORIDA	195	137	133	156	135	146	123	131	159	162	154
SOUTHERN	291	347	355	355	382	394	379	309	309	310	310
TVA	299	319	295	299	289	280	294	308	306	288	296
VACAR	516	512	530	508	520	519	729	739	774	731	807
SPP	415	362	369	360	434	450	452	406	948	1137	677
SOUTHEAST	61	79	76	82	85	80	80	81	643	830	365
WEST CENTRAL	132	92	92	96	160	160	160	110	92	90	90
NORTHERN	222	191	201	182	189	210	212	215	213	217	222
WSCC	117	0	0	0	0	0	0	0	0	0	0
NW POOL	0	0	0	0	0	0	0	0	0	0	0
ROCKY MT-AREA	23	0	0	0	0	0	0	0	0	0	0
ARIZ-N.MEX	73	0	0	0	0	0	0	0	0	0	0
CALIF-SO.NEV	21	0	0	0	0	0	0	0	0	0	0
TOTAL(U.S.)	7114	5841	5648	5681	5920	6117	6338	6293	7094	7139	7044
NERC-CANADA											
MAPP	78	160	160	160	160	160	160	160	160	160	160
NPCC	241	266	256	232	220	236	253	255	256	255	259
NEW BRUNSWICK	26	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	20	65	76	69	79	80	89	95	96	95	99
ONTARIO	195	201	180	163	141	156	164	160	160	160	160
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	319	426	416	392	380	396	413	415	416	415	419
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	7433	6267	6064	6073	6300	6513	6751	6708	7510	7554	7463

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a) Includes #1 and #2 oil, kerosene and jet fuel.

APPENDIX C

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
REGIONAL FOSSIL FUEL REQUIREMENTS FOR ELECTRIC ENERGY PRODUCTION
DISTILLATE OIL[a] (COMBUSTION TURBINE)[b] - 1000's BARRELS

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	126	150	150	150	150	150	200	200	200	200	200
ERCOT	0	0	0	181	180	911	911	1199	1290	1386	1386
MAAC	1414	996	824	808	751	678	719	797	812	989	1221
MAIN	57	94	71	133	121	127	107	153	152	154	251
CMNWLTH EDISON	30	30	20	10	20	10	10	20	30	50	100
EAST MISSOURI	7	45	34	31	34	43	30	74	32	29	66
S CENT ILLINOIS	4	0	0	0	0	3	3	3	3	6	6
WIS-UPPER MICH	16	19	17	92	67	71	64	56	87	69	79
MAPP	27	41	48	81	73	78	96	97	125	132	176
NPCC	771	3615	3292	4132	4042	3928	3216	850	1036	668	849
NEW YORK	553	3467	3249	4103	3999	3891	3175	811	968	578	720
NEW ENGLAND	218	148	43	29	43	37	41	39	68	90	126
SERC	1763	1629	1261	1456	1626	1942	2630	3076	3368	3479	4016
FLORIDA	1235	929	875	866	975	1169	1618	1872	2188	2060	2546
SOUTHERN	98	12	4	8	39	42	47	87	124	172	240
TVA	82	358	54	159	86	51	115	215	249	185	261
VACAR	348	330	328	423	526	680	850	902	807	1062	969
SPP	73	98	98	136	129	133	153	157	253	195	310
SOUTHEAST	0	0	1	4	3	8	7	29	112	64	180
WEST CENTRAL	0	0	0	0	0	5	7	6	7	7	6
NORTHERN	73	98	97	132	126	120	139	122	134	124	124
WSCC	188	492	490	449	452	452	916	920	923	929	934
NW POOL	0	0	0	0	0	0	461	461	461	461	461
ROCKY MT-AREA	2	2	2	2	2	2	2	3	3	3	2
ARIZ-N.MEX	13	8	6	5	5	5	5	5	5	5	5
CALIF-SO.NEV	173	482	482	442	445	445	448	451	454	460	466
TOTAL(U.S.)	4419	7115	6234	7526	7524	8399	8947	7449	8159	8132	9344
NERC-CANADA											
MAPP	3603	3012	2112	2012	2012	1712	1512	1412	1512	1512	1612
NPCC	42	80	86	92	92	94	137	106	110	113	117
NEW BRUNSWICK	8	0	0	0	0	2	45	16	20	23	27
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	34	80	86	92	92	92	92	90	90	90	90
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	3645	3092	2198	2104	2104	1806	1649	1518	1622	1625	1729
NERC-MEXICO											
WSCC	276	132	129	128	128	128	128	128	128	128	128
TOTAL(MEXICO)	276	132	129	128	128	128	128	128	128	128	128
NERC-TOTAL	8340	10339	8561	9758	9756	10333	10724	9095	9909	9885	11201

a) Includes #1 and #2 oil, kerosene and jet fuel.
b) Includes diesel units.

APPENDIX C

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
REGIONAL FOSSIL FUEL REWUIREMENTS FUR ELECTRIC ENERGY PRODUCTION
DISTILLATE OIL[a] (COMBINED CYCLE) - 1000's BARRELS

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	42	45	45	45	45	45	45	45	45	45	45
ERCOT	1	0	0	0	0	0	0	0	0	0	0
MAAC	226	86	113	104	165	132	124	217	250	275	299
MAIN	0	0	0	0	0	0	0	0	0	0	0
CMNWLTH EDISON	0	0	0	0	0	0	0	0	0	0	0
EAST MISSOURI	0	0	0	0	0	0	0	0	0	0	0
S CENT ILLINOIS	0	0	0	0	0	0	0	0	0	0	0
WIS-UPPER MICH	0	0	0	0	0	0	0	0	0	0	0
MAPP	0	1	0	0	0	0	0	0	0	0	0
NPCC	521	410	9	2	6	5	4	3	23	35	232
NEW YORK	0	0	0	0	0	0	0	0	0	0	0
NEW ENGLAND	521	410	9	2	6	5	4	3	23	35	232
SERC	11	1	1	1	1	1	1	1	1	1	1
FLORIDA	11	1	1	1	1	1	1	1	1	1	1
SOUTHERN	0	0	0	0	0	0	0	0	0	0	0
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	0	0	0	0	0	0	0	0	0	0	0
SPP	0	0	0	0	0	0	0	216	241	243	243
SOUTHEAST	0	0	0	0	0	0	0	0	0	0	0
WEST CENTRAL	0	0	0	0	0	0	0	216	241	243	243
NORTHERN	0	0	0	0	0	0	0	0	0	0	0
WSCC	99	0	0	0	0	0	0	0	0	0	0
NW POOL	0	0	0	0	0	0	0	0	0	0	0
ROCKY MT AREA	0	0	0	0	0	0	0	0	0	0	0
ARIZ-N.MEX	0	0	0	0	0	0	0	0	0	0	0
CALIF-SO.NEV	99	0	0	0	0	0	0	0	0	0	0
TOTAL(U.S.)	900	543	168	152	217	183	174	482	560	599	820
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	0	0	0	0	0	0	0	0	0	0	0
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	900	543	168	152	217	183	174	482	560	599	820

a) Includes #1 and #2 oil, kerosene and jet fuel.

APPENDIX C

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
REGIONAL FOSSIL FUEL REQUIREMENTS FOR ELECTRIC ENERGY PRODUCTION
TOTAL RESIDUAL OIL[a,b] 1000's BARRELS

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	437	430	430	430	500	510	510	510	510	510	510
ERCOT	718	510	510	505	508	506	506	506	506	506	506
MAAC	24227	17582	16648	17452	19127	17520	16977	18721	19761	23460	24415
MAIN	2833	1680	1109	315	683	671	736	1228	1762	2588	3337
CMNWLTH EDISON	2504	1300	800	250	620	550	620	1140	1660	2540	3270
EAST MISSOURI	264	260	258	0	0	0	0	0	0	0	0
S CENT ILLINOIS	64	119	50	64	62	120	115	87	101	47	66
WIS-UPPER MICH	1	1	1	1	1	1	1	1	1	1	1
MAPP	24	24	39	24	42	43	45	59	70	75	88
NPCC	87274	100483	85509	81223	84704	80784	86254	90369	97313	104088	115552
NEW YORK	43264	43306	42015	37389	40398	40613	46343	51564	53729	54963	57204
NEW ENGLAND	44010	57177	43494	43834	44306	40171	39911	38805	43584	49125	58348
SERC	23775	16045	16511	16588	17593	20497	23491	26323	30667	30545	37464
FLORIDA	22419	15345	15929	15105	15831	18237	21127	23067	26469	25709	32881
SOUTHERN	76	5	1	1	0	0	0	0	0	0	0
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	1280	695	581	1482	1762	2260	2364	3256	4198	4836	4583
SPP	238	72	49	55	109	216	228	68	775	1280	1169
SOUTHEAST	212	34	0	0	0	0	5	8	723	1228	1115
WEST CENTRAL	10	13	24	29	83	190	195	31	24	24	24
NORTHERN	16	25	25	26	26	26	28	29	28	28	30
WSCC	4138	592	415	343	329	295	421	974	1406	1586	1694
NW POOL	26	0	0	0	0	0	38	38	38	38	38
ROCKY MT-AREA	6	0	0	0	0	0	0	0	0	0	0
ARIZ-N.MEX	65	21	0	0	0	0	12	656	979	950	973
CALIF-SO.NEV	4041	571	415	343	329	295	371	280	389	598	683
TOTAL(U.S.)	143664	137418	121220	116935	123595	121042	129168	138758	152770	164638	184735
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	4401	2632	2698	3189	4209	7253	11075	9970	10517	11097	11631
NEW BRUNSWICK	3365	1774	1769	2582	2816	5730	10574	9480	9925	10347	10855
NOVA SCOTIA	980	856	904	605	1391	1521	499	486	590	748	774
ONTARIO	56	2	25	2	2	2	2	2	2	2	2
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	4401	2632	2698	3189	4209	7253	11075	9970	10517	11097	11631
NERC-MEXICO											
WSCC	2369	2102	1703	2170	2653	3118	3604	3640	3539	3936	4611
TOTAL(MEXICO)	2369	2102	1703	2170	2653	3118	3604	3640	3539	3936	4611
NERC-TOTAL	150434	142152	125621	122294	130457	131413	143847	152368	166826	179671	200977

a) Includes #4, #5, and #6 oil.

b) Used in steam, combustion turbine (and diesel) and combined cycle units.

APPENDIX C

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
REGIONAL FOSSIL FUEL REQUIREMENTS FOR ELECTRIC ENERGY PRODUCTION
RESIDUAL OIL[a] (STEAM) - 1000's BARRELS

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	437	430	430	430	500	510	510	510	510	510	510
ERCOT	718	510	510	505	508	506	506	506	506	506	506
MAAC	24227	17582	16648	17452	19127	17520	16977	18721	19761	23460	24415
MAIN	2832	1679	1108	314	682	670	735	1227	1761	2587	3336
CMNWLTH EDISON	2504	1300	800	250	620	550	620	1140	1660	2540	3270
EAST MISSOURI	264	260	258	0	0	0	0	0	0	0	0
S CENT ILLINOIS	64	119	50	64	62	120	115	87	101	47	66
WIS-UPPER MICH	0	0	0	0	0	0	0	0	0	0	0
MAPP	17	17	32	17	35	36	35	49	60	65	78
NPCC	86969	100344	85487	81218	84678	80767	86232	90352	97270	104035	115367
NEW YORK	43264	43306	42015	37389	40398	40613	46343	51564	53729	54963	57204
NEW ENGLAND	43705	57038	43472	43829	44280	40154	39889	38788	43541	49072	58163
SERC	23535	15793	16204	16244	17173	20012	22593	25251	29310	29239	34556
FLORIDA	22180	15093	15622	14761	15411	17752	20229	21995	25384	24782	30311
SOUTHERN	75	5	1	1	0	0	0	0	0	0	0
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	1280	695	581	1482	1762	2260	2364	3256	3926	4457	4245
SPP	238	72	49	55	109	216	228	68	775	1280	1169
SOUTHEAST	212	34	0	0	0	0	5	8	723	1228	1115
WEST CENTRAL	10	13	24	29	83	190	195	31	24	24	24
NORTHERN	16	25	25	26	26	26	28	29	28	28	30
WSCC	4076	592	415	343	329	295	421	824	1256	1436	1544
NW POOL	26	0	0	0	0	0	38	38	38	38	38
ROCKY MT-AREA	0	0	0	0	0	0	0	0	0	0	0
ARIZ-N.MEX	10	21	0	0	0	0	12	506	829	800	823
CALIF-SO.NEV	4040	571	415	343	329	295	371	280	389	598	683
TOTAL(U.S.)	143049	137019	120883	116578	123141	120532	128237	137508	151209	163118	181481
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	4401	2632	2698	3189	4209	7253	11075	9970	10517	11097	11631
NEW BRUNSWICK	3365	1774	1769	2582	2816	5730	10574	9480	9925	10347	10855
NOVA SCOTIA	980	856	904	605	1391	1521	499	488	590	748	774
ONTARIO	56	2	25	2	2	2	2	2	2	2	2
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	4401	2632	2698	3189	4209	7253	11075	9970	10517	11097	11631
NERC-MEXICO											
WSCC	2369	2102	1703	2170	2653	3118	3604	3640	3539	3936	4611
TOTAL(MEXICO)	2369	2102	1703	2170	2653	3118	3604	3640	3539	3936	4611
NERC-TOTAL	149819	141753	125284	121937	130003	130903	142916	151118	165265	178151	197723

a) Includes #4, #5, and #6 oil.

APPENDIX C

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
REGIONAL FOSSIL FUEL REQUIREMENTS FOR ELECTRIC ENERGY PRODUCTION
RESIDUAL OIL[a] (COMBUSTION TURBINE)[b] - 1000's BARRELS

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	0	0	0	0	0	0	0	0	0	0	0
ERCOT	0	0	0	0	0	0	0	0	0	0	0
MAAC	0	0	0	0	0	0	0	0	0	0	0
MAIN	1	1	1	1	1	1	1	1	1	1	1
CMNWLTH EDISON	0	0	0	0	0	0	0	0	0	0	0
EAST MISSOURI	0	0	0	0	0	0	0	0	0	0	0
S CENT ILLINOIS	0	0	0	0	0	0	0	0	0	0	0
WIS-UPPER MICH	1	1	1	1	1	1	1	1	1	1	1
MAPP	7	7	7	7	7	7	10	10	10	10	10
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW YORK	0	0	0	0	0	0	0	0	0	0	0
NEW ENGLAND	0	0	0	0	0	0	0	0	0	0	0
SERC	235	200	273	252	313	432	803	913	1060	861	993
FLORIDA	234	200	273	252	313	432	803	913	1060	861	993
SOUTHERN	1	0	0	0	0	0	0	0	0	0	0
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	0	0	0	0	0	0	0	0	0	0	0
SPP	0	0	0	0	0	0	0	0	0	0	0
SOUTHEAST	0	0	0	0	0	0	0	0	0	0	0
WEST CENTRAL	0	0	0	0	0	0	0	0	0	0	0
NORTHERN	0	0	0	0	0	0	0	0	0	0	0
WSCC	6	0	0	0	0	0	0	150	150	150	150
NW POOL	0	0	0	0	0	0	0	0	0	0	0
ROCKY MT-AREA	6	0	0	0	0	0	0	0	0	0	0
ARIZ-N.MEX	0	0	0	0	0	0	0	150	150	150	150
CALIF-SO.NEV	0	0	0	0	0	0	0	0	0	0	0
TOTAL(U.S.)	249	208	281	260	321	440	814	1074	1221	1022	1154
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	0	0	0	0	0	0	0	0	0	0	0
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	249	208	281	260	321	440	814	1074	1221	1022	1154

a) Includes #4, #5, and #6 oil.
b) Includes diesel units.

APPENDIX C

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
REGIONAL FOSSIL FUEL REQUIREMENTS FOR ELECTRIC ENERGY PRODUCTION
RESIDUAL OIL[a] (COMBINED CYCLE) - 1000's BARRELS

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	0	0	0	0	0	0	0	0	0	0	0
ERCOT	0	0	0	0	0	0	0	0	0	0	0
MAAC	0	0	0	0	0	0	0	0	0	0	0
MAIN	0	0	0	0	0	0	0	0	0	0	0
CMNWLTH EDISON	0	0	0	0	0	0	0	0	0	0	0
EAST MISSOURI	0	0	0	0	0	0	0	0	0	0	0
S CENT ILLINOIS	0	0	0	0	0	0	0	0	0	0	0
WIS-UPPER MICH	0	0	0	0	0	0	0	0	0	0	0
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	305	139	22	5	26	17	22	17	43	53	185
NEW YORK	0	0	0	0	0	0	0	0	0	0	0
NEW ENGLAND	305	139	22	5	26	17	22	17	43	53	185
SERC	5	52	34	92	107	53	95	159	297	445	1915
FLORIDA	5	52	34	92	107	53	95	159	25	66	1577
SOUTHERN	0	0	0	0	0	0	0	0	0	0	0
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	0	0	0	0	0	0	0	0	272	379	338
SPP	0	0	0	0	0	0	0	0	0	0	0
SOUTHEAST	0	0	0	0	0	0	0	0	0	0	0
WEST CENTRAL	0	0	0	0	0	0	0	0	0	0	0
NORTHERN	0	0	0	0	0	0	0	0	0	0	0
WSCC	56	0	0	0	0	0	0	0	0	0	0
NW POOL	0	0	0	0	0	0	0	0	0	0	0
ROCKY MT-AREA	0	0	0	0	0	0	0	0	0	0	0
ARIZ-N.MEX	55	0	0	0	0	0	0	0	0	0	0
CALIF-SO.NEV	1	0	0	0	0	0	0	0	0	0	0
TOTAL(U.S.)	366	191	56	97	133	70	117	176	340	498	2100
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	0	0	0	0	0	0	0	0	0	0	0
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	366	191	56	97	133	70	117	176	340	498	2100

a) Includes #4, #5, and #6 oil.

APPENDIX C

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
REGIONAL FOSSIL FUEL REQUIRMENTS FOR ELECTRIC ENERGY PRODUCTION
TOTAL CRUDE OIL (STEAM) - 1000's BARRELS

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	0	0	0	0	0	0	0	0	0	0	0
ERCOT	0	0	0	0	0	0	0	0	0	0	0
MAAC	0	0	0	0	0	0	0	0	0	0	0
MAIN	0	0	0	0	0	0	0	0	0	0	0
CMNWLTH EDISON	0	0	0	0	0	0	0	0	0	0	0
EAST MISSOURI	0	0	0	0	0	0	0	0	0	0	0
S CENT ILLINOIS	0	0	0	0	0	0	0	0	0	0	0
WIS-UPPER MICH	0	0	0	0	0	0	0	0	0	0	0
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW YORK	0	0	0	0	0	0	0	0	0	0	0
NEW ENGLAND	0	0	0	0	0	0	0	0	0	0	0
SERC	0	0	0	0	0	0	0	0	0	0	0
FLORIDA	0	0	0	0	0	0	0	0	0	0	0
SOUTHERN	0	0	0	0	0	0	0	0	0	0	0
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	0	0	0	0	0	0	0	0	0	0	0
SPP	0	0	0	0	0	0	0	0	0	0	0
SOUTHEAST	0	0	0	0	0	0	0	0	0	0	0
WEST CENTRAL	0	0	0	0	0	0	0	0	0	0	0
NORTHERN	0	0	0	0	0	0	0	0	0	0	0
WSCC	44	291	258	182	190	1669	1821	2162	2559	2929	3369
NW POOL	0	0	0	0	0	0	0	0	0	0	0
ROCKY MT-AREA	0	120	120	116	126	120	128	130	122	158	177
ARIZ-N.MEX	0	0	0	0	0	0	0	0	0	0	0
CALIF-SO.NEV	44	171	138	66	64	1549	1693	2032	2437	2771	3192
TOTAL(U.S.)	44	291	258	182	190	1669	1821	2162	2559	2929	3369
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	0	0	0	0	0	0	0	0	0	0	0
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	44	291	258	182	190	1669	1821	2162	2559	2929	3369

APPENDIX C

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
REGIONAL FOSSIL FUEL REQUIREMENTS FOR ELECTRIC ENERGY PRODUCTION
TOTAL FIRM NATURAL GAS[a] - 1000 MCF

	ACTUAL 1985	1986	1987	1989	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	0	0	0	0	0	0	0	0	0	0	0
ERCOT	751938	763916	735220	666534	627305	647722	679594	660889	661461	638245	607659
MAAC	0	0	0	0	0	0	0	0	0	0	0
MAIN	4710	3406	604	379	509	425	416	571	810	980	1709
CMNWLTH EDISON	4574	3110	310	80	230	140	120	290	510	690	1410
EAST MISSOURI	3	260	260	260	260	260	260	260	260	260	260
S CENT ILLINOIS	132	36	34	39	19	25	36	21	40	30	39
WIS-UPPER MICH	1	0	0	0	0	0	0	0	0	0	0
MAPP	432	859	965	983	988	988	812	812	812	812	812
NPCC	18498	15000	10000	5000	0	0	0	0	0	0	0
NEW YORK	18499	15000	10000	5000	0	0	0	0	0	0	0
NEW ENGLAND	0	0	0	0	0	0	0	0	0	0	0
SERC	6348	4713	5169	4622	4910	4934	4281	4161	4806	5204	4444
FLORIDA[b]	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
SOUTHERN	6080	4318	4166	4174	4301	4300	3592	3442	3313	3303	3193
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	266	395	1003	448	609	634	689	719	1493	1901	1251
SPP	429765	413688	370737	389384	398508	387879	398769	431184	468099	485262	491832
SOUTHEAST	160124	162600	119517	128710	139822	156764	157618	181159	209958	218543	224640
WEST CENTRAL	260351	243874	245391	253447	251899	224904	234904	243221	251047	260544	260735
NORTHERN	9290	7214	5829	7227	6787	6211	6247	6804	7094	6175	6457
WSCC	707403	425155	363702	309368	320031	306371	316030	294912	333690	350801	368968
NW POOL	3245	8467	8771	9202	12204	11826	12107	12334	12204	12204	11826
ROCKY MT-AREA	1880	1208	1225	1368	1449	1525	1933	2301	3386	1920	1074
ARIZ-N.MEX	62733	34606	31371	30201	32547	33189	30411	29933	31827	34256	38222
CALIF-SO NEV	639545	380874	322335	268597	273831	259831	271579	250344	286273	302421	337866
TOTAL(U.S.)	1919094	1626737	1486397	1376270	1352251	1348319	1399902	1392529	1469678	1481304	1495444
NERC-CANADA											
MAPP	4146	1566	2025	3132	4185	4644	4158	2862	3834	4509	4347
NPCC	235	156	155	148	154	154	151	150	150	150	150
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	235	156	155	148	154	154	151	150	150	150	150
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	14380	23143	32726	41487	42113	37212	31819	31415	33816	34462	36601
TOTAL(CANADA)	18761	24865	34906	44767	46452	42010	36128	34427	37800	39121	41098
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	1937855	1651602	1521303	1421037	1398703	1390329	1436030	1426956	1507478	1520425	1536542

a) Used in steam, combustion turbine (and diesel), and combined cycle units.
b) Does not distinguish between firm and interruptible natural gas. See Table 28 for SERC (Florida) total natural gas figures.

APPENDIX C

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
REGIONAL FOSSIL FUEL REQUIREMENTS FOR ELECTRIC ENERGY PRODUCTION
FIRM NATURAL GAS (STEAM) - 1000 MCF

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	0	0	0	0	0	0	0	0	0	0	0
ERCOT	716307	718219	692480	624274	590771	607962	636773	619533	613568	591853	560774
MAAC	0	0	0	0	0	0	0	0	0	0	0
MAIN	4230	2087	263	259	255	259	261	256	264	258	262
CMNWLTH EDISON	4104	1830	0	0	0	0	0	0	0	0	0
EAST MISSOURI	0	250	250	250	250	250	250	250	250	250	250
S CENT ILLINOIS	125	7	13	9	5	9	11	6	14	8	12
WIS-UPPER MICH	1	0	0	0	0	0	0	0	0	0	0
MAPP	412	585	812	812	812	812	812	812	812	812	812
NPCC	18052	15000	10000	5000	0	0	0	0	0	0	0
NEW YORK	18052	15000	10000	5000	0	0	0	0	0	0	0
NEW ENGLAND	0	0	0	0	0	0	0	0	0	0	0
SERC	2658	930	1314	951	911	861	636	497	418	404	314
FLORIDA[a]	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
SOUTHERN	2558	836	823	821	820	820	592	442	313	303	193
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	100	94	491	130	91	41	44	55	105	101	121
SPP	406378	385905	335774	355690	365448	354860	364383	396678	432489	447627	454213
SOUTHEAST	160073	161915	119183	128399	139480	156503	157273	180774	209667	218167	224323
WEST CENTRAL	237015	216776	210762	220064	219181	192146	200863	209100	215728	223285	223433
NORTHERN	9290	7214	5829	7227	6787	6211	6247	6804	7094	6175	6457
WSCC	664376	413427	353115	299385	308621	293585	304971	285213	322081	338590	375597
NW POOL	3245	8467	8771	9202	12204	11826	12107	12334	12204	12204	11826
ROCKY MT-AREA	1599	1159	1185	1325	1424	1449	1659	1928	2283	1265	896
ARIZ-N.MEX	39063	23122	21244	20696	21927	21364	20377	21417	22086	23750	26374
CALIF-SO.NEV	620469	380679	321915	268162	273066	258946	270829	249534	285508	301371	336501
TOTAL(U.S.)	1812413	1536153	1393758	1286371	1266818	1258339	1307836	1302989	1369632	1379544	1391972
NERC-CANADA											
MAPP	3519	945	1080	1377	1593	1701	1566	1026	1377	1485	1647
NPCC	235	156	155	148	154	154	151	150	150	150	150
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	235	156	155	148	154	154	151	150	150	150	150
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	5851	12729	25718	32540	33065	25452	20958	20612	22680	23195	25001
TOTAL(CANADA)	9605	13830	26953	34065	34812	27307	22675	21788	24207	24830	26798
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	1822018	1549983	1420711	1320436	1301630	1285646	1330511	1324777	1393839	1404374	1418770

a) See Appendix C, page 13, footnote b.

APPENDIX C

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
REGIONAL FOSSIL FUEL REQUIREMENTS FOR ELECTRIC ENERGY PRODUCTION
FIRM NATURAL GAS (COMBUSTION TURBINE)[a] - 1000 MCF

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	0	0	0	0	0	0	0	0	0	0	0
ERCOT	4166	10592	10406	10059	9447	10387	11244	11483	16246	15325	16552
MAAC	0	0	0	0	0	0	0	0	0	0	0
MAIN	480	1319	341	120	254	166	155	315	546	722	1447
CMNWLTH EDISON	470	1280	310	80	230	140	120	290	510	690	1410
EAST MISSOURI	3	10	10	10	10	10	10	10	10	10	10
S CENT ILLINOIS	7	29	21	30	14	16	25	15	26	22	27
WIS-UPPER MICH	0	0	0	0	0	0	0	0	0	0	0
MAPP	20	274	153	171	176	176	0	0	0	0	0
NPCC	446	0	0	0	0	0	0	0	0	0	0
NEW YORK	446	0	0	0	0	0	0	0	0	0	0
NEW ENGLAND	0	0	0	0	0	0	0	0	0	0	0
SERC	3690	3748	3735	3601	3959	3933	3424	3372	3559	4268	3441
FLORIDA[b]	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
SOUTHERN	3522	3482	3343	3353	3481	3480	3000	3000	3000	3000	3000
TVA[c]	0	0	0	0	0	0	0	0	0	0	0
VACAR	168	266	392	248	478	453	424	372	559	1268	441
SPP	424	725	391	325	378	435	417	451	1156	2707	5186
SOUTHEAST	51	685	334	311	342	261	345	385	291	376	317
WEST CENTRAL	373	40	57	14	36	174	72	66	865	2331	4869
NORTHERN	0	0	0	0	0	0	0	0	0	0	0
WSCC	6503	1053	1644	1362	1865	2287	1938	1873	2829	2821	3112
NW POOL	0	0	0	0	0	0	0	0	0	0	0
ROCKY MT-AREA	281	49	40	43	25	76	275	373	1103	655	178
ARIZ-N.MEX	4272	809	1184	884	1075	1326	913	690	961	1116	1569
CALIF-SO NEV	1950	195	420	435	765	885	750	810	765	1050	1365
TOTAL(U.S.)	15729	17711	16670	15638	16079	17384	17178	17494	24336	25843	29738
NERC-CANADA											
MAPP	627	621	945	1755	2592	2943	2592	1836	2457	3024	2700
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	8529	10414	7008	8947	9048	11760	10861	10803	11136	11267.	11600
TOTAL(CANADA,	9156	11035	7953	10702	11640	14703	13453	12639	13593	14291	14300
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	24885	28746	24623	26340	27719	32087	30631	30133	37929	40134	44038

a) Includes diesel units.
b) See Appendix C, page 13, footnote b.
c) Gas is used in 30% of TVA's gas turbines when available and economic. TVA does not predict natural gas usage in the long range planning process.

APPENDIX C

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
REGIONAL FOSSIL FUEL REQUIREMENTS FOR ELECTRIC ENERGY PRODUCTION
FIRM NATURAL GAS (COMBINED CYCLE) - 1000 MCF

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	0	0	0	0	0	0	0	0	0	0	0
ERCOT	31465	35105	32334	32201	27087	29373	31577	29873	31647	31067	30333
MAAC	0	0	0	0	0	0	0	0	0	0	0
MAIN	0	0	0	0	0	0	0	0	0	0	0
CMNWLTH EDISON	0	0	0	0	0	0	0	0	0	0	0
EAST MISSOURI	0	0	0	0	0	0	0	0	0	0	0
S CENT ILLINOIS	0	0	0	0	0	0	0	0	0	0	0
WIS-UPPER MICH	0	0	0	0	0	0	0	0	0	0	0
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW YORK	0	0	0	0	0	0	0	0	0	0	0
NEW ENGLAND	0	0	0	0	0	0	0	0	0	0	0
SERC	0	35	120	70	40	140	221	292	829	532	689
FLORIDA[a]	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
SOUTHERN	0	0	0	0	0	0	0	0	0	0	0
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	0	35	120	70	40	140	221	292	829	532	689
SPP	22963	27058	34572	33369	32682	32584	33969	34055	34454	34928	32433
SOUTHEAST	0	0	0	0	0	0	0	0	0	0	0
WEST CENTRAL	22963	27058	34572	33369	32682	32584	33969	34055	34454	34928	32433
NORTHERN	0	0	0	0	0	0	0	0	0	0	0
WSCC	36524	10675	8943	8621	9545	10499	9121	7826	8780	9390	10279
NW POOL	0	0	0	0	0	0	0	0	0	0	0
ROCKY MT-AREA	0	0	0	0	0	0	0	0	0	0	0
ARIZ-N.MEX	19398	10675	8943	8621	9545	10499	9121	7826	8780	9390	10279
CALIF-SO NEV	17126	0	0	0	0	0	0	0	0	0	0
TOTAL(U.S.)	90952	72873	75969	74261	69354	72596	74888	72046	75710	75917	73734
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	0	0	0	0	0	0	0	0	0	0	0
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	90952	72873	75969	74261	69354	72596	74888	72046	75710	75917	73734

a) See Appendix C, page 13, footnote b.

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
REGIONAL FOSSIL FUEL REQUIREMENTS FOR ELECTRIC ENERGY PRODUCTION
TOTAL INTERRUPTIBLE NATURAL GAS[a,b] - 1000 MCF

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	3523	2670	2005	2005	2005	2005	2005	2005	2005	2005	2005
ERCOT	280375	250423	246356	207537	236797	267465	269730	258266	293735	293189	277846
MAAC	72580	69821	84953	87737	96996	94618	102851	110904	111309	110574	117888
MAIN	1828	1821	2456	2011	2300	2481	2640	3041	3416	4255	4960
CMNWLTH EDISON	0	0	0	0	0	0	0	0	0	0	0
EAST MISSOURI	399	0	0	0	0	0	0	0	0	0	0
S CENT ILLINOIS	315	4	4	8	7	10	14	49	43	16	12
WIS-UPPER MICH	1114	1817	2452	2003	2293	2471	2626	2992	3373	4239	4948
MAPP	515261	135211	156087	3152	3181	3479	3830	4169	4393	4801	5180
NPCC	202348	147676	111322	85981	56418	55863	36322	11757	13004	13569	15562
NEW YORK	153941	145000	110000	85000	55000	55000	35000	11000	11000	11000	11000
NEW ENGLAND	48407	2676	1322	981	1418	863	1322	757	2004	2569	4562
SERC	3059	2893	2567	3093	4101	4633	4083	5164	4624	5083	4612
FLORIDA[c]	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
SOUTHERN	1743	911	862	1518	1448	1410	1181	761	716	537	397
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	1316	1982	1705	1575	2653	3223	2902	4403	3908	4546	4215
SPP	295157	230936	209307	217860	222868	282370	312387	318080	326684	328794	314039
SOUTHEAST	269740	215661	196335	205971	207972	216264	228185	230549	230947	224803	201049
WEST CENTRAL	17464	6659	1457	1166	1666	50192	64761	65396	70235	75184	78778
NORTHERN	7953	8616	11515	10723	13230	15914	19441	22135	25502	28807	34212
WSCC	3508	344087	278180	228408	243883	240547	256904	265017	286761	295916	267987
NW POOL	75	941	973	1022	1356	20531	29576	29751	29587	29587	29545
ROCKY MT-AREA	2273	2585	2582	2646	2593	2291	2556	2792	3730	3044	2441
ARIZ-N MEX	0	20287	16436	11429	10961	6416	4675	5440	12549	17149	18220
CALIF-SO NEV	1160	320274	258189	213311	228973	211309	220097	227034	240895	246136	217781
TOTAL(U.S.)	1377639	1185538	1093233	837784	868549	953461	990752	978403	1045931	1058186	1010079
NERC-CANADA											
MAPP	16	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	950	12825	25926	34390	37535	38371
TOTAL(CANADA)	16	6000	6000	6000	6000	6950	18825	31926	40390	43535	44371
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	1377655	1191538	1099233	843784	874549	960411	1009577	1010329	1086321	1101721	1054450

a) Interruptible by contractual agreement.
b) Used in steam, combustion turbine (and diesel), and combined cycle units.
c) Does not distinguish between firm and interruptible natural gas. See Table 28 for SERC (Florida) total natural gas figures.

APPENDIX C

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
REGIONAL FOSSIL FUEL REQUIREMENTS FOR ELECTRIC ENERGY PRODUCTION
INTERRUPTIBLE NATURAL GAS[a] (STEAM) - 1000 MCF

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	1625	1045	380	380	380	380	380	380	380	380	380
ERCOT	273213	243007	240889	201548	228769	254770	256665	243624	279353	276931	261654
MAAC	54745	51442	67796	73689	80446	80752	88749	91376	89572	85865	90667
MAIN	1579	1447	1757	1633	1794	1607	1786	1918	1919	2496	2546
CMNWLTH EDISON	0	0	0	0	0	0	0	0	0	0	0
EAST MISSOURI	399	0	0	0	0	0	0	0	0	0	0
S CENT ILLINOIS	290	4	4	8	7	10	13	41	28	15	10
WIS-UPPER MICH	890	1443	1753	1625	1787	1597	1773	1877	1891	2481	2536
MAPP	453613	1669	1834	1824	1383	2079	2195	2423	2436	2526	2835
NPCC	194054	143139	109000	84500	55000	55000	35000	11000	11000	11000	11000
NEW YORK	151026	143000	109000	84500	55000	55000	35000	11000	11000	11000	11000
NEW ENGLAND	43028	139	0	0	0	0	0	0	0	0	0
SERC	2852	2686	2401	3062	4076	4607	4045	5136	4593	5053	4583
FLORIDA[b]	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
SOUTHERN	1707	878	838	1487	1423	1384	1143	733	685	507	368
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	1145	1808	1563	1575	2653	3223	2902	4403	3908	4546	4215
SPP	294096	229648	208181	216493	221293	280301	309328	314503	322172	324566	308767
SOUTHEAST	269740	215280	196264	205781	207925	216186	228080	230344	230113	224371	200756
WEST CENTRAL	17115	6659	1457	1166	1666	50144	64516	64952	69622	74144	76912
NORTHERN	7241	7709	10460	9546	11702	13971	16732	19207	22437	26051	31099
WSCC	3452	292725	228431	179967	195741	173740	180716	188163	208022	214128	187281
NW POOL	19	941	973	1022	1356	1314	1345	1370	1356	1356	1314
ROCKY MT-AREA	2273	2568	2567	2633	2585	2266	2461	2672	3388	2826	2383
ARIZ-N.MEX	0	14985	13051	9984	9776	5749	3728	4036	9366	12060	14053
CALIF-SO.NEV	1160	274231	211840	166328	182024	164411	173182	180085	193912	197886	169531
TOTAL(U.S.)	1279229	966808	860669	763096	789482	853236	878864	858523	919447	922945	869713
NERC-CANADA											
MAPP	16	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	950	12825	25926	34390	37535	38371
TOTAL(CANADA)	16	6000	6000	6000	6000	6950	18825	31926	40390	43535	44371
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	1279245	972808	866669	769096	795482	860186	897689	890449	959837	966480	914084

a) Interruptible by contractual agreement.
b) See Appendix C, page 17, footnote c.

APPENDIX C
NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
REGIONAL FOSSIL FUEL REQUIREMENTS FOR ELECTRIC ENERGY PRODUCTION
INTERRUPTIBLE NATURAL GAS[a] (COMBUSTION TURBINE)[b] - 1000 MCF

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	1898	1625	1625	1625	1625	1625	1625	1625	1625	1625	1625
ERCOT	278	0	0	1085	1080	5467	5467	7197	7749	8409	8428
MAAC	10227	13932	11342	8702	8030	7070	7686	8335	8824	10530	11796
MAIN	249	374	699	378	506	874	854	1123	1497	1759	2414
CMNWLTH EDISON	0	0	0	0	0	0	0	0	0	0	0
EAST MISSOURI	0	0	0	0	0	0	0	0	0	0	0
S CENT ILLINOIS	25	0	0	0	0	0	1	8	15	1	2
WIS-UPPER MICH	224	374	699	378	506	874	853	1115	1482	1758	2412
MAPP	61616	133424	154237	1247	1170	1372	1565	1703	1924	2241	2314
NPCC	3113	2011	1000	500	0	0	0	0	0	0	0
NEW YORK	2915	2000	1000	500	0	0	0	0	0	0	0
NEW ENGLAND	198	11	0	0	0	0	0	0	0	0	0
SERC	207	207	166	31	25	26	38	28	31	30	29
FLORIDA[c]	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
SOUTHERN	36	33	24	31	25	26	38	28	31	30	29
TVA[d]	0	0	0	0	0	0	0	0	0	0	0
VACAR	171	174	142	0	0	0	0	0	0	0	0
SPP	582	567	733	959	1176	1633	2542	3061	3364	3513	4636
SOUTHEAST	0	0	0	0	0	0	0	0	0	0	0
WEST CENTRAL	349	0	0	0	0	48	245	444	613	1040	1866
NORTHERN	233	567	733	959	1176	1585	2297	2617	2751	2473	2770
WSCC	56	8538	8121	7854	7994	14316	14386	14580	14989	14861	14859
NW POOL	56	0	0	0	0	6437	6437	6448	6437	6437	6437
ROCKY MT-AREA	0	17	15	13	8	25	95	120	342	218	58
ARIZ-N.MEX	0	1763	974	105	250	118	118	276	474	645	803
CALIF-SO.NEV	0	6758	7132	7736	7736	7736	7736	7736	7736	7561	7561
TOTAL(U.S.)	78226	160678	177923	22381	21614	32383	34163	37652	40003	42968	46101
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	0	0	0	0	0	0	0	0	0	0	0
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	78226	160678	177923	22381	21614	32383	34163	37652	40003	42968	46101

a) Interruptible by contractual agreement.

b) Includes diesel units.

c) See Appendix C, page 17, footnote c.

d) Gas is used in 30% of TVA's gas turbines when available and economic. TVA does not predict natural gas usage in the long range planning process.

APPENDIX C
NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
REGIONAL FOSSIL FUEL REQUIREMENTS FOR ELECTRIC ENERGY PRODUCTION
INTERRUPTIBLE NATURAL GAS[a] (COMBINED CYCLE) - 1000 MCF

	ACTUAL 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
NERC-U.S.											
ECAR	0	0	0	0	0	0	0	0	0	0	0
ERCOT	6804	7416	5467	4904	6948	7228	7598	7445	6633	7849	7764
MAAC	7608	4447	5815	5346	8512	6796	6416	11193	12913	14179	15425
MAIN	0	0	0	0	0	0	0	0	0	0	0
CMNWLTH EDISON	0	0	0	0	0	0	0	0	0	0	0
EAST MISSOURI	0	0	0	0	0	0	0	0	0	0	0
S CENT ILLINOIS	0	0	0	0	0	0	0	0	0	0	0
WIS-UPPER MICH	0	0	0	0	0	0	0	0	0	0	0
MAPP	32	118	16	81	28	28	70	43	33	34	31
NPCC	5181	2526	1322	981	1418	863	1322	757	2004	2569	4562
NEW YORK	0	0	0	0	0	0	0	0	0	0	0
NEW ENGLAND	5181	2526	1322	981	1418	863	1322	757	2004	2569	4562
SERC	0	0	0	0	0	0	0	0	0	0	0
FLORIDA[b]	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
SOUTHERN	0	0	0	0	0	0	0	0	0	0	0
TVA	0	0	0	0	0	0	0	0	0	0	0
VACAR	0	0	0	0	0	0	0	0	0	0	0
SPP	479	721	393	408	399	436	517	516	1148	715	636
SOUTHEAST	0	381	71	190	47	78	105	205	834	432	293
WEST CENTRAL	0	0	0	0	0	0	0	0	0	0	0
NORTHERN	479	340	322	218	352	358	412	311	314	283	343
WSCC	0	42824	41628	40587	40148	52491	61802	62274	63750	66927	65847
NW POOL	0	0	0	0	0	12780	21794	21933	21794	21794	21794
ROCKY MT-AREA	0	0	0	0	0	0	0	0	0	0	0
ARIZ-N.MEX	0	3539	2411	1340	935	549	829	1128	2709	4444	3364
CALIF-SO.NEV	0	39285	39217	39247	39213	39162	39179	39213	39247	40689	40689
TOTAL(U.S.)	20184	58052	54641	52307	57453	67842	77725	82228	86481	92273	94265
NERC-CANADA											
MAPP	0	0	0	0	0	0	0	0	0	0	0
NPCC	0	0	0	0	0	0	0	0	0	0	0
NEW BRUNSWICK	0	0	0	0	0	0	0	0	0	0	0
NOVA SCOTIA	0	0	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	0	0	0	0	0	0	0	0	0
QUEBEC	0	0	0	0	0	0	0	0	0	0	0
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(CANADA)	0	0	0	0	0	0	0	0	0	0	0
NERC-MEXICO											
WSCC	0	0	0	0	0	0	0	0	0	0	0
TOTAL(MEXICO)	0	0	0	0	0	0	0	0	0	0	0
NERC-TOTAL	20184	58052	54641	52307	57453	67842	77725	82228	86481	92273	94265

a) Interruptible by contractual agreement.
b) See Appendix C, page 17, footnote c.

APPENDIX D

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
GENERATING UNIT ADDITIONS
(April 1, 1986 - December 31, 1995)

IN-SVC DATE	REGION	SUBREG	ST/PROV	UTILITY	NAME	MW-S	TYPE	FUEL	STATUS	U/NU	JOINT
86/04	ECAR		IN	IP&L	PETERSBURG 4	515	ST	COL	V	U	
86/04	ECAR		MI	DECO	FERMI 2	1093	NB	UR	V	U	J
86/04	MAAC		PA	BCCO	SAFE HARBOR 11	38	HY	WAT	V	U	J
86/04	NPCC	ONT	ON	ONHY	BRUCE 7	835	CD	UR	V	U	
86/04	NPCC	QUE	QE	HYQB	LG-4 9	294	HY	WAT	V	U	
86/04	SPP	SE	LA	GUSU	RIVER BEND 1	940	NB	UR	V	U	J
86/04	SPP	WC	LA	SOEP	DOLET HILLS 1	640	ST	LIG	V	U	J
86/04	WSCC	AZN	AZ	APS	PALO VERDE 2	1270	NP	UR	V	U	J
86/04	WSCC	CNV	CA	NCPA	GT PROJECT 5	25	GT	NG	V	U	J
86/04	WSCC	CNV	CA	PG&E	FAIRHAVEN POWER CO.	22	ZZ	ZZ	P	ZZ	
86/04	WSCC	NWP	MT	MPC	COLSTRIP 4	700	ST	BIT	V	U	J
86/04	WSCC	NWP	UT	USUC	LEVAN 1	.5	HY	WAT	V	U	
86/04	WSCC	NWP	UT	USUC	LEVAN 2	.5	HY	WAT	V	U	
86/04	WSCC	NWP	WA	TCL	MAIN CANAL HEADWORKS	22	HY	WAT	V	ZZ	
86/04	WSCC	RMP	CO	PRPA	BUTTONROCK	3	HY	WAT	T	U	
86/04	WSCC	RMP	CO	PSC	CORRIDOR WIND	3	WM	WND	V	U	
86/04	WSCC	RMP	CO	PSC	SUNSHINE HYDRO	1	HY	WAT	P	ZZ	
86/05	NPCC	NE	CT	NOEU	MILLSTONE 3	1150	NP	UR	V	U	J
86/05	NPCC	NE	UN	IPSW	IPSWICH DIESEL 14	1.25	IC	GAS	U	U	
86/05	NPCC	NY	NY	LOIL	INDEPENDENT POWER PRODUCERS	2	ZZ	UNK	P	ZZ	
86/05	NPCC	NY	NY	NEYE	INDEPENDENT POWER PRODUCERS	2.7	ZZ	UNK	P	ZZ	
86/05	NPCC	NY	NY	NIMP	IND. POWER PRODUCERS	130.2	ZZ	UNK	P	ZZ	
86/05	WSCC	CNV	CA	CCSF	MOCCASIN	2	HY	WAT	P	U	
86/05	WSCC	CNV	CA	SNCL	COMB. TURBINE NO. 1	25	GT	NG	V	U	
86/05	WSCC	CNV	CA	TID	GT PROJECT 1	25	GT	NG	V	U	
86/05	WSCC	CNV	CA	TID	GT PROJECT 2	25	GT	NG	V	U	
86/05	WSCC	CNV	CA	USMP	WEBER GT	9	CG	NG	V	CG	
86/05	WSCC	NWP	OR	PGE	MARION CO. SOLID WASTE	15	CG	REF	P	CG	
86/06	MAPP		ND	BEPC	ANTELOPE VALLEY 2	450	ST	LIG	V	U	
86/06	NPCC	ONT	ON	ONHY	DARLINGTON COMPLEX	104	GT	FO2	V	U	
86/06	SPP	N	MO	EMDE	ASBURY 2	20	ST	BIT	V	U	
86/06	WSCC	CNV	CA	USMP	COYOTE DAM	2	HY	WAT	V	U	
86/06	WSCC	CNV	CA	USMP	STAMPEDE	3	HY	WAT	U	U	
86/06	WSCC	CNV	CA	USMP	STOVALL UNIT 1	.5	HY	WAT	V	ZZ	
86/06	WSCC	CNV	CA	USMP	STOVALL UNIT 2	.5	HY	WAT	V	ZZ	
86/07	WSCC	CNV	CA	SCE	GEOTHERMAL	5	GE	GST	V	U	
86/07	WSCC	CNV	CA	SCE	NON-UTILITY BIOMASS	50	IC	ZZ	P	ZZ	
86/07	WSCC	CNV	CA	SCE	NON-UTILITY COGEN	109	CG	ZZ	P	CG	
86/07	WSCC	CNV	CA	SCE	NON-UTILITY GEOTHERMAL	116	GE	GST	P	ZZ	
86/07	WSCC	CNV	CA	SCE	NON-UTILITY SOLAR	30	SO	SUN	P	ZZ	
86/07	WSCC	CNV	CA	SCE	NON-UTILITY WIND	41	WM	WND	P	ZZ	
86/07	WSCC	CNV	UT	LDWP	INTERMOUNTAIN 1	761	ST	BIT	V	U	J
86/07	WSCC	RMP	CO	PSC	BOULDER WASTE	1	CG	REF	V	CG	
86/08	MAIN	SCI	IL	IP	CLINTON 1	950	NB	UR	V	U	J
86/09	NPCC	NY	NY	NEYE	CADYVILLE	3	HY	WAT	T	U	
86/09	SERC	TVA	TN	TEVA	WATTS BAR 1[a]	1170	NP	UR	V	U	
86/10	NPCC	NE	NH	PSNH	SEABROOK 1	1150	NP	UR	V	U	J
86/10	NPCC	NY	NY	CEHG	HIGH FALLS	2	HY	WAT	T	U	
86/10	WSCC		MX	CFE	CERRO PRIETO II UNIT 2	100	GE	GST	V	U	
86/10	WSCC	NWP	UT	USUC	ECHO 1	1.4	HY	WAT	T	U	
86/10	WSCC	NWP	UT	USUC	ECHO 2	1.3	HY	WAT	T	U	
86/10	WSCC	NWP	UT	USUC	ECHO 3	1.3	HY	WAT	T	U	
86/11	NPCC	NE	VT	VTGP	BOLTON FALLS	3.3	HY	WAT	U	U	
86/12	ERCOT		TX	C&SW	OKLAUNION 1	665	ST	SUB	V	U	J

a) The commercial operation date for Watts Bar Unit 1 is pending a resolution of startup issues with the Nuclear Regulatory Commission.

APPENDIX D
NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
GENERATING UNIT ADDITIONS
(April 1, 1986 - December 31, 1995)

IN-SVC DATE	REGION	SUBREG	ST/PROV	UTILITY	NAME	MW-S	TYPE	FUEL	STATUS	U/NU	JOINT
86/12	ERCOT		TX	HL&P	LIMESTONE 2	720	ST	LIG	V	U	
86/12	MAAC		NJ	PSCO	HOPE CREEK 1	1067	NB	UR	V	U	J
86/12	WSCC	CNV	CA	LDWP	COGENERATION	25	CG	UNK	P	CG	
86/12	WSCC	CNV	CA	PG&E	NEWCASTLE	2	HY	WAT	U	U	
86/12	WSCC	CNV	CA	PG&E	QF WIND 86	37	WM	WND	P	ZZ	
86/12	WSCC	CNV	CA	PG&E	SMALL QF HYDRO 86	12	HY	WAT	P	ZZ	
86/12	WSCC	CNV	CA	PG&E	WISE UNIT 2	3	HY	WAT	L	U	
86/4Q	SERC	VAC	NC	CAPO	HARRIS 1	900	NP	UR	V	U	
*	ECAR		OH	CAPCO	PERRY 1	1179	NB	UR	V	U	J
SUBTOTAL						17474					
87/01	ECAR		MI	CP	SMALL POWER PRODUCERS	19	ZZ	UNK	P	ZZ	
87/01	ECAR		PA	APS	AES BEAVER VALLEY (PURPA)	100	ST	COL	U	ZZ	
87/01	NPCC	NY	NY	NIMP	NINE MILE POINT 2	1080	NP	UR	V	U	J
87/01	NPCC	ONT	ON	ONHY	BRUCE 8	835	CD	UR	V	U	
87/01	SERC	SOU	GA	GEPC	SCHERER 3	808	ST	BIT	V	U	J
87/01	SERC	VAC	VA	VIEP	NORTH ANNA HYDRO	1	HY	WAT	L	U	
87/01	WSCC	AZN	NM	LAC	EL VADO DAM	6	HY	WAT	P	U	
87/01	WSCC	CNV	CA	CCSF	O'SHAUGHNESSY	3	HY	WAT	P	U	
87/01	WSCC	CNV	CA	PG&E	BOWMAN	3	HY	WAT	P	ZZ	
87/01	WSCC	CNV	CA	PG&E	GENERIC COGEN GAS 87	414	CG	NG	P	CG	
87/01	WSCC	CNV	CA	PG&E	GENERIC COGEN NON-GAS 87	332	CG	UNK	P	CG	
87/01	WSCC	CNV	CA	PG&E	SAND BAR	12	HY	WAT	L	ZZ	
87/01	WSCC	CNV	CA	PG&E	UNID. DISTR. FP HYDRO 87	2	HY	WAT	P	ZZ	
87/01	WSCC	CNV	CA	PG&E	UNID. DISTR. QF HYDRO 87	2	HY	WAT	P	ZZ	
87/01	WSCC	NWP	ID	IPC	COGEN NO. 4	6	CG	UNK	P	CG	
87/02	WSCC	AZN	NM	LAC	ABIQUIU 1	6	HY	WAT	P	U	
87/02	WSCC	AZN	NM	LAC	ABIQUIU 2	5	HY	WAT	P	U	
87/02	WSCC	CNV	CA	PG&E	CHRISTIAN VALLEY	1	HY	WAT	L	U	
87/02	WSCC	CNV	CA	PG&E	EMIGRANT GAP	0	HY	WAT	L	U	
87/02	WSCC	CNV	CA	PG&E	FIDDLER GREEN	0	HY	WAT	L	U	
87/03	MAIN	WUM	WI	WPS	HYDRO	1	HY	WAT	P	ZZ	
87/03	WSCC	CNV	CA	CDWR	THERMALITO DIV. DAM	3	HY	WAT	U	U	
87/04	SERC	FL	FL	JACO	ST. JOHN'S 1	550	ST	BIT	V	U	J
87/04	WSCC	AZN	NM	FARM	NAVAJO DAM	30	HY	WAT	P	U	
87/04	WSCC	RMP	CO	PSC	BETASSO HYDRO	3	HY	WAT	T	ZZ	
87/04	WSCC	RMP	CO	PSC	INTERNATIONAL ENERGY	3	ZZ	ZZ	P	ZZ	
87/04	WSCC	RMP	CO	PSC	THERMO POWER	63	CG	NG	L	CG	
87/05	ERCOT		TX	AUST	GAS TURBINE 1	50	GT	NG	U	U	
87/05	ERCOT		TX	AUST	GAS TURBINE 2	50	GT	NG	U	U	
87/05	ERCOT		TX	AUST	GAS TURBINE 3	50	GT	NG	U	U	
87/05	ERCOT		TX	AUST	GAS TURBINE 4	50	GT	NG	U	U	
87/05	ERCOT		TX	AUST	LONGHORN DAM HYDRO 1	3	HY	WAT	U	U	
87/05	MAIN	CE	IL	CECO	BRAIDWOOD 1	1090	NP	UR	V	U	
87/05	MAIN	CE	IL	CECO	BYRON 2	1120	NP	UR	V	U	
87/05	MAPP		MN	NSP	RIVERSIDE 7	51	ST	COL	U	U	
87/05	NPCC	NE	VT	VTGP	HUNTINGTON FALLS	.6	HY	WAT	L	U	
87/05	NPCC	NY	NY	LOIL	SHOREHAM	809	NB	UR	V	U	
87/05	NPCC	NY	NY	NIMP	INDEPENDENT POWER PRODUCERS	149	ZZ	UNK	P	ZZ	
87/06	MAIN	WUM	WI	WEP	SMALL UNITS	20	UN	UNK	P	ZZ	
87/06	NPCC	NE	UN	NEES	WILDER 3	3.2	HY	WAT	P	U	
87/06	SERC	SOU	GA	GEPC	VOGTLE 1	1150	NP	UR	V	U	J
87/06	WSCC	AZN	AZ	APS	PALO VERDE 3	1270	NP	UR	V	U	J
87/06	WSCC	CNV	CA	LDWP	COGENERATION	45	CG	UNK	P	CG	

a) Full reliable operation is expected before the 1986-87 winter peak period. The effective date will depend on fuel load and progress during the test period.

APPENDIX D

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
GENERATING UNIT ADDITIONS
(April 1, 1986 - December 31, 1995)

IN-SVC DATE	REGION	SUBREG	ST/PROV	UTILITY	NAME	MW-S	TYPE	FUEL	STATUS	U/NU	JOINT
87/06	WSCC	CNV	CA	SCE	SALTON SEA 1	9	GE	GST	V	U	
87/06	WSCC	CNV	CA	SNCL	HIGH LINE CANAL	0	HY	WAT	T	U	
87/06	WSCC	NWP	UT	USUC	EAST CANYON 1	1	HY	WAT	T	U	
87/06	WSCC	NWP	UT	USUC	EAST CANYON 2	1	HY	WAT	T	U	
87/06	WSCC	RMP	CO	PSC	BLUE RIVER	2	HY	WAT	P	ZZ	
87/06	WSCC	RMP	CO	PSC	CTDC	75	CG	NG	T	CG	
87/06	WSCC	RMP	CO	PSC	NORTH FORK HYDRO	6	HY	WAT	P	ZZ	
87/07	ERCOT		TX	TUEC	COMANCHE PEAK 1	1150	NP	UR	V	U	J
87/07	SERC	FL	FL	ORLA	STANTON 1	415	ST	BIT	V	U	J
87/07	WSCC	CNV	CA	GLEN	SCHOLL CANYON 2	12	IC	REF	T	U	
87/07	WSCC	CNV	CA	SCE	NON-UTILITY BIOMASS	178	IC	UNK	P	ZZ	
87/07	WSCC	CNV	CA	SCE	NON-UTILITY COGEN	79	CG	UNK	P	CG	
87/07	WSCC	CNV	CA	SCE	NON-UTILITY COGEN	96	CG	UNK	P	CG	
87/07	WSCC	CNV	CA	SCE	NON-UTILITY GEOTHERMAL	86	GE	GST	P	ZZ	
87/07	WSCC	CNV	CA	SCE	NON-UTILITY SOLAR	12	SO	SUN	P	ZZ	
87/07	WSCC	CNV	CA	SCE	NON-UTILITY WIND	41	WM	WND	P	ZZ	
87/07	WSCC	CNV	UT	LDWP	INTERMOUNTAIN 2	761	ST	BIT	V	U	J
87/08	WSCC	CNV	CA	PG&E	DOAKS RIDGE	1	HY	WAT	L	U	
87/10	MAPP		SA	SPC	FUTURE GT 1	150	GT	NG	P	U	
87/10	WSCC	CNV	CA	PG&E	CHOWCHILLA BIOMASS PP	7	ZZ	ZZ	P	ZZ	
87/10	WSCC	CNV	CA	PG&E	SHELL-MARTINEZ COGEN	49	CG	NG	P	CG	
87/10	WSCC	NWP	WA	TCL	STEAM PLANT NO. 2	37	CG	BIT	P	CG	
87/11	MAPP		MN	MP	BLANCHARD 3	6	HY	WAT	U	U	
87/11	MAPP		MN	NSP	SHERBURNE CO 3	800	ST	SUB	L	U	J
87/11	NPCC	NE	VT	VTGP	BELDEN	.6	HY	WAT	L	U	
87/11	SERC	FL	FL	FOPC	D. KING 5	8	CW	WH	U	U	
87/11	SERC	FL	FL	FOPC	D. KING 9	20	CT	NG	U	U	
87/11	WSCC	CNV	CA	SNCL	BLACK BUTTE DAM	6	HY	WAT	T	U	
87/11	WSCC	NWP	MT	MPC	BIRD	70	ST	F04	P	U	
87/12	ECAR		PA	CAPCO	BEAVER VALLEY 2	820	NP	UR	V	U	J
87/12	ERCOT		TX	HL&P	SOUTH TEXAS PROJECT 1	1250	NP	UR	V	U	J
87/12	MAAC		UN	GPUS	QUALIFYING FACILITIES	63	ZZ	UNK	P	ZZ	
87/12	NPCC	NY	NY	NIMP	H.E.A.R.	3	HY	WAT	P	U	
87/12	WSCC	CNV	CA	PG&E	QF WIND 87	8	WM	WND	P	ZZ	
87/12	WSCC	CNV	CA	PG&E	SMALL QF HYDRO 87	12	HY	WAT	P	ZZ	
87/12	WSCC	CNV	CA	PG&E	STATION T	50	CG	NG	P	U	
87/Unk	MAIN	WUM	WI	KAUK	COMBINED LOCKS	6	HY	WAT	P	U	
87/Unk	SERC	VAC	SC	DUPC	CATAWBA 2	1145	NP	UR	V	U	
SUBTOTAL						17634					
88/01	ECAR		MI	CP	SMALL POWER PRODUCERS	20	ZZ	UNK	P	ZZ	
88/01	ECAR		PA	APS	ALLEGHENY LK&D #5 (PURPA)	4	HY	WAT	P	ZZ	
88/01	ERCOT		TX	LCRA	F.P.P. 3 (FAYETTE)	397	ST	LIG	U	U	
88/01	ERCOT		TX	TUEC	COMANCHE PEAK 2	1150	NP	UR	V	U	J
88/01	NPCC	NE	VT	VTGP	HIGHGATE FALLS	3.1	HY	WAT	T	U	
88/01	WSCC	CNV	CA	CCPA	CCPA NO. 1-1	61	GE	GST	L	U	J
88/01	WSCC	CNV	CA	CCPA	CCPA NO.1-2	61	GE	GST	L	U	J
88/01	WSCC	CNV	CA	PG&E	CHAMBERS/JACKASS DIV.	0	HY	WAT	L	U	
88/01	WSCC	CNV	CA	PG&E	COGENERATION EOR GAS 88	600	CG	NG	P	CG	
88/01	WSCC	CNV	CA	PG&E	GENERIC COGEN NON-GAS 88	148	CG	UNK	P	CG	
88/01	WSCC	CNV	CA	PG&E	MOKELUMNE IMPROVEMENTS	0	HY	WAT	L	U	
88/01	WSCC	CNV	CA	PG&E	UNID. DISTR. FP HYDRO 88	2	HY	WAT	P	ZZ	
88/01	WSCC	CNV	CA	PG&E	UNID. DISTR. QF HYDRO 88	2	HY	WAT	P	ZZ	
88/01	WSCC	CNV	CA	PG&E	UNID. PG&E SMALL HYDRO 88	2	HY	WAT	P	U	
88/01	WSCC	CNV	CA	PG&E	WEST POINT 2	4	HY	WAT	L	U	
88/01	WSCC	CNV	CA	RDNG	NORTH FORK	0	HY	WAT	L	U	
88/01	WSCC	CNV	CA	RDNG	REDDING MSW NO. 1	20	ZZ	REF	P	U	

APPENDIX D

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
GENERATING UNIT ADDITIONS
(April 1, 1986 - December 31, 1995)

IN-SVC DATE	REGION	SUBREG	ST/PROV	UTILITY	NAME	MW-S	TYPE	FUEL	STATUS	U/NU	JOINT
88/01	WSCC	CNV	CA	SCE	BALSAM MEADOW HYDRO	200	HY	WAT	U	U	
88/01	WSCC	CNV	CA	SCE	SMALL HYDRO	6	HY	WAT	T	U	
88/01	WSCC	CNV	CA	SMUD	UNIDENTIFIED PEAKING	50	ZZ	UNK	P	U	
88/01	WSCC	CNV	CA	SMUD	UNIDENTIFIED PEAKING	50	ZZ	UNK	P	U	
88/01	WSCC	CNV	CA	TID	DON PEDRO UNIT 4	28	HY	WAT	P	U	J
88/01	WSCC	CNV	CA	USMP	MUNICIPAL WASTE PP	4	CG	REF	T	CG	
88/01	WSCC	CNV	CA	USMP	WARM SPRINGS DAM	1	HY	WAT	T	ZZ	
88/01	WSCC	NWP	ID	WWPC	MISC. SMALL HYDRO	1	HY	WAT	L	ZZ	
88/02	NPCC	ONT	ON	ONHY	DARLINGTON 1	881	CD	UR	V	U	
88/02	WSCC	CNV	CA	PG&E	MOKELUMNE	1	HY	WAT	L	U	
88/02	WSCC	CNV	CA	PG&E	SALT SPRINGS 3	6	HY	WAT	L	U	
88/03	ERCOT		TX	TUEC	COMBUSTION TURBINE	190	GT	NG	L	U	
88/03	MAAC		PA	ALEC	RAYSTOWN 1	0.6	HY	WAT	T	U	
88/03	MAAC		PA	ALEC	RAYSTOWN 2	0.7	HY	WAT	T	U	
88/03	MAAC		PA	ALEC	RAYSTOWN 3	0.7	HY	WAT	T	U	
88/03	MAIN	WUM	WI	WPS	COGENERATION PLANT	12	ST	COL	P	CG	
88/03	NPCC	NE	ME	BAHE	MILFORD	.7	HY	WAT	P	U	
88/04	SERC	TVA	TN	TEVA	WATTS BAR 2	1170	NP	UR	V	U	
88/04	WSCC	NWP	ID	SCL	LUCKY PEAK	100	HY	WAT	U	ZZ	
88/05	ERCOT		TX	AUST	REFUSE 1	12	ZZ	REF	U	U	
88/05	NPCC	NY	NY	LOIL	INDEPENDENT POWER PRODUCERS	20	ZZ	UNK	P	ZZ	
88/05	NPCC	NY	NY	NIMP	INDEPENDENT POWER PRODUCERS	101.7	ZZ	UNK	P	ZZ	
88/05	NPCC	NY	NY	POAS	INDEPENDENT POWER PRODUCERS	1	ZZ	UNK	P	ZZ	
88/05	NPCC	ONT	ON	ONHY	DARLINGTON 2	881	CD	UR	V	U	
88/05	WSCC		MX	CFE	ROSARITO GT 3	45	GT	F02	T	U	
88/05	WSCC	CNV	CA	PG&E	SCOTT	1	HY	WAT	L	U	
88/05	WSCC	CNV	CA	PG&E	YELLOW CREEK DIV PROJ	0	HY	WAT	L	U	
88/05	WSCC	CNV	CA	SDGE	HEBER	45	GE	GST	V	U	J
88/06	MAIN	WUM	WI	WEP	SMALL UNITS	10	UN	UNK	P	ZZ	
88/06	NPCC	NE	NH	PSNH	MURPHY DAM	2.25	HY	WAT	P	U	
88/06	SPP	N	MO	EMDE	ENERGY CENTER NO. 3	75	CA	NG	P	U	
88/06	WSCC	NWP	UT	USUC	MOON LAKE 4	1.6	HY	WAT	T	U	
88/06	WSCC	NWP	UT	USUC	MOON LAKE 5	1.7	HY	WAT	T	U	
88/06	WSCC	NWP	UT	USUC	MOON LAKE 6	1.7	HY	WAT	T	U	
88/07	ECAR		WV	APS	HANNIBAL LK&D (PURPA)	19	HY	WAT	P	ZZ	
88/07	WSCC	CNV	CA	SCE	NON-UTILITY BIOMASS	59	IC	UNK	P	ZZ	
88/07	WSCC	CNV	CA	SCE	NON-UTILITY COGEN	270	CG	ZZ	P	CG	
88/07	WSCC	CNV	CA	SCE	NON-UTILITY COGEN	395	CG	UNK	P	CG	
88/07	WSCC	CNV	CA	SCE	NON-UTILITY GEOTHERMAL	10	GE	GST	P	ZZ	
88/07	WSCC	CNV	CA	SCE	NON-UTILITY SOLAR	12	SO	SUN	P	ZZ	
88/09	MAIN	CE	IL	CECO	BRAIDWOOD 2	1090	NP	UR	V	U	
88/09	SERC	SOU	GA	GEPC	VOGTLE 2	1150	NP	UR	U	U	J
88/09	WSCC	NWP	OR	USCE	BONNEVILLE FW SITE 3	2	HY	WAT	T	U	
88/09	WSCC	NWP	OR	USCE	BONNEVILLE FW SITE 4	3	HY	WAT	T	U	
88/09	WSCC	NWP	WA	USCE	BONNEVILLE FW SITE 6	3	HY	WAT	T	U	
88/10	MAPP		SA	SPC	FUTURE GT 2	200	GT	NG	P	U	
88/10	SERC	FL	FL	JACO	ST. JOHN'S 2	550	ST	BIT	V	U	J
88/10	SERC	FL	FL	ORLA	INDIAN RIVER PK1	60	GT	F06	P	U	
88/10	SPP	SE	AR	AREC	HS 13 UNIT #1	6	HY	WAT	U	U	
88/10	WSCC	CNV	CA	PG&E	OWID: ROCK CREEK II	30	HY	WAT	L	ZZ	
88/10	WSCC	RMP	CO	USUC	MCPHEE POWER PLANT	1	HY	WAT	P	U	
88/11	SPP	SE	AR	AREC	HS 13 UNIT #2	6	HY	WAT	U	U	
88/11	WSCC	CNV	CA	PG&E	GRIZZLY	18	HY	WAT	P	U	
88/12	ECAR		IN	AEP	ROCKPORT 2	1300	ST	COL	U	U	
88/12	MAAC		UN	GPUS	QUALIFYING FACILITIES	63	ZZ	UNK	P	ZZ	
88/12	NPCC	NY	NY	NIMP	H.E.A.R.	4	HY	WAT	P	U	
88/12	SPP	SE	AR	AREC	HS 13 UNIT #3	5	HY	WAT	U	U	

APPENDIX D

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
GENERATING UNIT ADDITIONS
(April 1, 1986 - December 31, 1995)

IN-SVC DATE	REGION	SUBREG	ST/PROV	UTILITY	NAME	MW-S	TYPE	FUEL	STATUS	U/NU	JOINT
88/12	WSCC	CNV	CA	PG&E	GEYSERS 21	140	GE	GST	L	U	
88/12	WSCC	CNV	CA	PG&E	QF WIND 88	7	WM	WND	P	ZZ	
88/12	WSCC	CNV	CA	PG&E	SMALL QF HYDRO 88	23	HY	WAT	P	ZZ	
SUBTOTAL						11802					
89/01	ECAR		MI	CP	SMALL POWER PRODUCERS	20	ZZ	UNK	P	ZZ	
89/01	NPCC	NE	MA	NOEU	CABOT 7	23.9	HY	WAT	P	U	
89/01	NPCC	NE	UN	NOEU	BULLS BRIDGE 7	6.6	HY	WAT	P	U	
89/01	NPCC	NE	UN	NOEU	FALLS VILLAGE 4	6.3	HY	WAT	P	U	
89/01	NPCC	NE	UN	Unk	W. RUTLAND (3rd Party Dev.)	230	CC	NG	P	ZZ	
89/01	NPCC	NY	NY	NIMP	H.E.A.R.	2	HY	WAT	P	U	
89/01	WSCC	CNV	CA	PG&E	GENERIC COGEN NON-GAS 89	237	CG	UNK	P	CG	
89/01	WSCC	CNV	CA	PG&E	PROJECT C	3	HY	WAT	P	U	
89/01	WSCC	CNV	CA	PG&E	PROJECT N	2	HY	WAT	P	U	
89/01	WSCC	CNV	CA	PG&E	SOFAR	110	HY	WAT	P	ZZ	
89/01	WSCC	CNV	CA	PG&E	UNID. DISTR. FP HYDRO 89	2	HY	WAT	P	ZZ	
89/01	WSCC	CNV	CA	PG&E	UNID. DISTR. QF HYDRO 89	2	HY	WAT	P	ZZ	
89/01	WSCC	CNV	CA	PG&E	UNID. PG&E SMALL HYDRO 89	2	HY	WAT	P	U	
89/01	WSCC	CNV	CA	SMUD	UNIDENTIFIED BASE	60	ZZ	UNK	P	U	
89/01	WSCC	NWP	ID	IPC	COGEN NO. 5	1	CG	UNK	P	CG	
89/01	WSCC	NWP	ID	WWPC	MISC. SMALL HYDRO	1	HY	WAT	L	ZZ	
89/02	SERC	SOU	GA	GEPC	SCHERER 4	808	ST	BIT	U	U	J
89/03	MAIN	WUM	WI	WPS	SOLID WASTE	5	ST	WD	P	ZZ	
89/03	NPCC	NE	ME	BAHE	WEST ENFIELD	5.5	HY	WAT	P	U	
89/03	WSCC		MX	CFE	ROSARITO II #1	145	ST	F06	U	U	
89/03	WSCC	CNV	CA	PG&E	CRESTA UNIT 3	18	HY	WAT	L	U	
89/03	WSCC	CNV	CA	PG&E	ROCK CREEK UNIT 3	36	HY	WAT	L	U	
89/05	MAAC		MD	DPLC	EASTON UNIDENTIFIED CT	6.3	IC	F02	P	U	
89/05	NPCC	NY	NY	LOIL	INDEPENDENT POWER PRODUCERS	20	ZZ	UNK	P	ZZ	
89/05	NPCC	NY	NY	NIMP	INDEPENDENT POWER PRODUCERS	31.8	ZZ	UNK	P	ZZ	
89/05	NPCC	NY	NY	POAS	INDEPENDENT POWER PRODUCERS	5	ZZ	UNK	P	ZZ	
89/05	SERC	SOU	AL	ALAP	MILLER 3	666	ST	BIT	U	U	
89/06	ERCOT		TX	HL&P	SOUTH TEXAS PROJECT 2	1250	NP	UR	V	U	J
89/06	MAIN	WUM	WI	WEP	SMALL UNITS	10	UN	REF	P	ZZ	
89/06	NPCC	NY	NY	POAS	PASNY NEW HYDRO	3.4	HY	WAT	P	U	
89/06	NPCC	QUE	QE	HYQB	MANIC 5 PA 1	245	HY	WAT	U	U	
89/06	WSCC	NWP	UT	UPLC	BLUNDELL 2	10	GE	GST	P	U	
89/07	WSCC	CNV	CA	SCE	NON-UTILITY BIOMASS	65	IC	ZZ	P	ZZ	
89/07	WSCC	CNV	CA	SCE	NON-UTILITY COGEN	42	CG	NG	P	CG	
89/07	WSCC	CNV	CA	SCE	NON-UTILITY COGEN	43	CG	UNK	P	CG	
89/07	WSCC	CNV	CA	SCE	NON-UTILITY GEOTHERMAL	111	GE	GST	P	ZZ	
89/07	WSCC	CNV	CA	SCE	NON-UTILITY SOLAR	6	SO	SUN	P	ZZ	
89/08	NPCC	QUE	QE	HYQB	MANIC 5 PA 2	245	HY	WAT	U	U	
89/09	WSCC	CNV	CA	PG&E	PH AT CRESTA DAM	0	HY	WAT	L	U	
89/09	WSCC	CNV	CA	PG&E	PH AT ROCK CREEK DAM	1	HY	WAT	L	U	
89/09	WSCC	RMP	CO	USUC	RIDGEWAY POWER PLANT	4	HY	WAT	P	U	
89/10	MAPP		SA	SPC	FUTURE GT 3	100	GT	NG	P	U	
89/10	NPCC	QUE	QE	HYQB	MANIC 5 PA 3	245	HY	WAT	U	U	
89/10	WSCC	CNV	CA	PG&E	FRENCH CREEK	0	HY	WAT	P	ZZ	
89/10	WSCC	NWP	AB	EDMP	GENESEE 2	386	ST	SUB	U	U	
89/11	NPCC	QUE	QE	HYQB	MANIC 5 PA 4	245	HY	WAT	U	U	
89/12	MAAC		UN	GPUS	QUALIFYING FACILITIES	63	ZZ	UNK	P	ZZ	
89/12	NPCC	NY	NY	NIMP	H.E.A.R.	10	HY	WAT	P	U	
89/12	NPCC	NY	NY	POAS	PASNY NEW HYDRO	3	HY	WAT	P	U	
89/12	WSCC	CNV	CA	PG&E	QF WIND 89	7	WM	WND	P	ZZ	
89/12	WSCC	CNV	CA	PG&E	SMALL QF HYDRO 89	10	HY	WAT	P	ZZ	
89/Unk	SERC	SOU	AL	ALEC	COMBUSTION TURBINE 1	50	CT	F02	P	U	
SUBTOTAL						5610					

APPENDIX D

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
GENERATING UNIT ADDITIONS
(April 1, 1986 - December 31, 1995)

IN-SVC DATE	REGION	SUBREG	ST/PROV	UTILITY	NAME	MW-S	TYPE	FUEL	STATUS	U/NU	JOINT
90/01	ECAR		MI	CP	SMALL POWER PRODUCERS	20	ZZ	UNK	P	ZZ	
90/01	NPCC	NE	UN	Unk	OCEAN ST. PWR (3rd Party Dev.)	230	CC	NG	P	ZZ	
90/01	NPCC	ONT	ON	ONHY	COGENERATION	30	CG	UNK	P	CG	
90/01	WSCC	CNV	CA	CDWR	SOUTH GEYSERS	55	GE	GST	U	U	
90/01	WSCC	CNV	CA	MID	LA GRANGE HYDRO	0	HY	WAT	P	U	
90/01	WSCC	CNV	CA	MID	MODESTO RESERVOIR	1	HY	WAT	P	U	
90/01	WSCC	CNV	CA	NCPA	HYDROELEC. PROJ. NO. 1	200	HY	WAT	U	U	J
90/01	WSCC	CNV	CA	PG&E	COGENERATION EOR GAS 90	600	CG	NG	P	CG	
90/01	WSCC	CNV	CA	PG&E	GENERIC COGEN NON-GAS 90	130	CG	UNK	P	CG	
90/01	WSCC	CNV	CA	PG&E	PROJECT L	14	HY	WAT	P	U	
90/01	WSCC	CNV	CA	PG&E	UNID. DISTR. FP HYDRO 90	2	HY	WAT	P	ZZ	
90/01	WSCC	CNV	CA	PG&E	UNID. DISTR. QF HYDRO 90	2	HY	WAT	P	ZZ	
90/01	WSCC	CNV	CA	PG&E	UNID. PG&E SMALL HYDRO 90	2	HY	WAT	P	U	
90/01	WSCC	CNV	CA	RDNG	LAKE REDDING	8	HY	WAT	L	U	
90/01	WSCC	RMP	WY	USLM	SHOSHONE 1	2.4	HY	WAT	T	U	
90/01	WSCC	RMP	WY	USLM	SHOSHONE 2	4	HY	WAT	T	U	
90/01	WSCC	RMP	WY	USLM	SHOSHONE 3	4.8	HY	WAT	T	U	
90/01	WSCC	RMP	WY	USLM	SHOSHONE 4	4.9	HY	WAT	T	U	
90/01	WSCC	RMP	WY	USLM	SHOSHONE 5	4.9	HY	WAT	T	U	
90/03	ERCOT		TX	TUEC	COMBUSTION TURBINE	770	GT	NG	L	U	
90/03	MAIN	WUM	WI	WPS	WOOD	10	ST	WD	P	ZZ	
90/03	NPCC	NY	NY	POAS	PASNY NEW HYDRO	12	HY	WAT	P	U	
90/03	SERC	SOU	GA	SEPA	R. B. RUSSELL 5	75	PS	WAT	U	U	
90/04	ERCOT		TX	CPSA	MSW-LCP	36	ST	REF	P	U	
90/04	NPCC	NE	VT	VTGP	C. RUTLAND	3	HY	WAT	P	U	
90/04	SERC	SOU	GA	SEPA	R. B. RUSSELL 7	75	PS	WAT	U	U	
90/04	WSCC	NWP	WA	SCL	SOUTH FORK TOLT	15	HY	WAT	L	U	
90/05	NPCC	NY	NY	CEHS	INDEPENDENT POWER PRODUCERS	15.6	ZZ	UNK	P	ZZ	
90/05	NPCC	NY	NY	LGIL	INDEPENDENT POWER PRODUCERS	20	ZZ	UNK	P	ZZ	
90/05	NPCC	NY	NY	NIMP	INDEPENDENT POWER PRODUCERS	223.5	ZZ	UNK	P	ZZ	
90/05	NPCC	NY	NY	POAS	INDEPENDENT POWER PRODUCERS	19	ZZ	UNK	P	ZZ	
90/05	SERC	VAC	SC	SOCG	HAGOOD CT 1	70	CT	NG	P	U	
90/05	SERC	VAC	SC	SOCG	HAGOOD CT 2	70	CT	NG	P	U	
90/05	SPP	WC	OK	OKGE	UNKNOWN 90	170	GT	F02	P	U	
90/06	NPCC	NY	NY	NIMP	H.E.A.R.	12	HY	WAT	P	U	
90/06	SERC	VAC	GA	SEPA	RUSSELL HYDRO UNIT 6	75	PS	WAT	U	U	
90/06	WSCC	AZN	AZ	TEP	SPRINGERVILLE 2	360	ST	SUB	U	U	
90/06	WSCC	NWP	OR	USCE	STRUBE UNIT 1	5	HY	WAT	T	U	
90/06	WSCC	NWP	UT	UPLC	BLUNDELL 3	14	GE	GST	P	U	
90/07	WSCC	CNV	CA	LDWP	SMALL HYDRO DEV	6	HY	WAT	P	U	
90/07	WSCC	CNV	CA	SCE	NON-UTILITY BIOMASS	6	IC	UNK	P	ZZ	
90/07	WSCC	CNV	CA	SCE	NON-UTILITY COGEN	56	CG	UNK	P	CG	
90/07	WSCC	CNV	CA	SCE	NON-UTILITY COGEN	78	CG	NG	P	CG	
90/07	WSCC	CNV	CA	SCE	NON-UTILITY GEOTHERMAL	45	GE	GST	P	ZZ	
90/07	WSCC	CNV	CA	SCE	NON-UTILITY SOLAR	6	SO	SUN	P	ZZ	
90/07	WSCC	NWP	OR	USCE	COUGAR UNIT 3	40	HY	WAT	T	U	
90/09	NPCC	NE	ME	CEMP	LEWISTON	25	HY	WAT	L	U	
90/10	WSCC	NWP	AB	TAUC	SHEERNESS 2	366	ST	SUB	U	U	J
90/10	WSCC	RMP	CO	CUEA	NUCLA 4	64	ST	BIT	U	U	
90/11	MAPP		MB	MHEB	LIMESTONE 1	120	HY	WAT	U	U	
90/12	MAAC		UN	GPUS	QUALIFYING FACILITIES	63	ZZ	UNK	P	ZZ	
90/12	MAPP		MB	MHEB	LIMESTONE 2	120	HY	WAT	U	U	
90/12	SERC	VAC	GA	SEPA	RUSSELL HYDRO UNIT 8	75	PS	WAT	U	U	
90/12	WSCC	CNV	CA	PG&E	QF WIND 90	7	WM	WND	P	ZZ	
90/12	WSCC	CNV	CA	PG&E	SMALL QF HYDRO 90	9	HY	WAT	P	ZZ	
90/12	WSCC	RMP	CO	USUC	TOWAOC	11	HY	WAT	P	U	
90/Unk	SERC	SOU	AL	ALEC	COMBUSTION TURBINE 2	50	CT	F02	P	U	
SUBTOTAL						4509					

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
GENERATING UNIT ADDITIONS
(April 1, 1986 - December 31, 1995)

IN-SVC DATE	REGION	SUBREG	ST/PROV	UTILITY	NAME	MW-S	TYPE	FUEL	STATUS	U/NU	JOINT
91/01	ECAR		MI	CP	SMALL POWER PRODUCERS	2	ZZ	UNK	P	ZZ	
91/01	ERCOT		TX	TMPP	UNDESIGNATED	100	UN	NG	P	U	
91/01	ERCOT		TX	TUEC	TWIN OAK 1	750	ST	LIG	U	U	
91/01	MAAC		PA	PECO	LIMERICK 2	1055	NB	UR	U	U	
91/01	NPCC	ONT	ON	ONHY	COGENERATION	30	CG	UNK	P	CG	
91/01	SERC	FL	FL	HSTM	G. W. IVEY 22	20	IC	NG	P	U	
91/01	WSCC	CNV	CA	PG&E	GENERIC COGEN NON-GAS 91	124	CG	UNK	P	CG	
91/01	WSCC	CNV	CA	PG&E	UNID. DISTR. FP HYDRO 91	2	HY	WAT	P	ZZ	
91/01	WSCC	CNV	CA	PG&E	UNID. DISTR. QF HYDRO 91	2	HY	WAT	P	ZZ	
91/01	WSCC	CNV	CA	PG&E	UNID. PG&E SMALL HYDRO 91	2	HY	WAT	P	U	
91/01	WSCC	NWP	NV	SPP	GEOTHERMAL 1	50	GE	GST	P	U	
91/02	MAPP		MB	MHEB	LIMESTONE 3	120	HY	WAT	U	U	
91/03	MAIN	WUM	WI	WPS	HYDRO	1	HY	WAT	P	ZZ	
91/03	WSCC	CNV	CA	PG&E	HAAS-KINGS PROJECT	40	HY	WAT	P	U	
91/04	MAPP		MB	MHEB	LIMESTONE 4	120	HY	WAT	U	U	
91/05	NPCC	NY	NY	LOIL	INDEPENDENT POWER PRODUCERS	20	ZZ	UNK	P	ZZ	
91/05	NPCC	NY	NY	NIMP	INDEPENDENT POWER PRODUCERS	40	ZZ	UNK	P	ZZ	
91/05	NPCC	NY	NY	POAS	INDEPENDENT POWER PRODUCERS	5	ZZ	UNK	P	ZZ	
91/05	SERC	SOU	AL	ALAP	MILLER 4	666	ST	BIT	U	U	
91/05	SPP	N	UN	MIPU	RALPH GREEN 3	61	GT	NG	P	U	
91/05	SPP	WC	OK	OKGE	UNKNOWN 91	240	GT	FO2	P	U	
91/05	WSCC	AZN	AZ	SRP	CORONADO 3	350	ST	SUB	U	U	
91/06	ECAR		OH	CG&E	W.H. ZIMMER 1	1300	ST	COL	U	U	J
91/06	MAIN	WUM	WI	WEP	SMALL UNITS	10	UN	REF	P	ZZ	
91/06	MAIN	WUM	WI	WPL	NEW CO-GEN. 1	11	UN	UNK	P	CG	
91/06	NPCC	NY	NY	NIMP	H.E.A.R.	1	HY	WAT	P	U	
91/06	WSCC	CNV	CA	LDWP	GENERIC 1991	100	ZZ	UNK	P	U	
91/06	WSCC	NWP	OR	USCE	BLUE R LAKE PH UNIT 1	10	HY	WAT	P	U	
91/06	WSCC	NWP	OR	USCE	BLUE R LAKE PH UNIT 2	10	HY	WAT	P	U	
91/07	ECAR		KY	LG&E	TRIMBLE COUNTY 1	495	ST	COL	U	U	
91/07	MAPP		MB	MHEB	LIMESTONE 5	120	HY	WAT	U	U	
91/07	NPCC	NY	NY	NIMP	H.E.A.R.	61	HY	WAT	P	U	
91/07	WSCC	CNV	CA	SCE	EDISON GENERIC HYDRO	2	HY	WAT	P	U	
91/07	WSCC	CNV	CA	SCE	NON-UTILITY COGEN	42	CG	NG	P	CG	
91/07	WSCC	CNV	CA	SCE	NON-UTILITY SOLAR	6	SO	SUN	P	ZZ	
91/08	WSCC	CNV	CA	PG&E	GEYSERS 19	55	GE	GST	P	U	
91/08	WSCC	NWP	OR	USCE	MCNARY 2ND PH 15	129	HY	WAT	P	U	
91/10	MAPP		MB	MHEB	LIMESTONE 6	120	HY	WAT	U	U	
91/10	MAPP		SA	SPC	FUTURE FOSSIL 1	272	ST	LIG	P	U	
91/10	WSCC	NWP	AB	EDMP	GENESEE 1	386	ST	SUB	U	U	
91/10	WSCC	NWP	WA	USCE	WYNOOCHEE UNIT 1	2	HY	WAT	P	U	
91/10	WSCC	NWP	WA	USCE	WYNOOCHEE UNIT 2	4	HY	WAT	P	U	
91/10	WSCC	NWP	WA	USCE	WYNOOCHEE UNIT 3	4	HY	WAT	P	U	
91/11	NPCC	NE	ME	BAHE	VEAZIE	6.6	HY	WAT	P	U	
91/11	NPCC	ONT	ON	ONHY	DARLINGTON 3	881	CD	UR	U	U	
91/11	WSCC	NWP	OR	USCE	MCNARY 2ND PH 16	129	HY	WAT	P	U	
91/12	ERCOT		TX	HL&P	MALAKOFF 1	645	ST	LIG	P	U	
91/12	MAAC		UN	GPUS	QUALIFYING FACILITIES	63	ZZ	UNK	P	ZZ	
91/12	MAPP		MB	MHEB	LIMESTONE 7	120	HY	WAT	U	U	
91/12	WSCC	CNV	CA	PG&E	QF WIND 91	7	WM	WND	P	ZZ	
91/12	WSCC	CNV	CA	PG&E	SMALL QF HYDRO 91	8	HY	WAT	P	ZZ	
91/1Q	SERC	VAC	NC	CAPO	MAYO 2	720	ST	COL	U	U	
91/Sum	MAIN	WUM	WI	MGE	COGENERATION	12	UN	UNK	P	CG	
91/Unk	NPCC	NS	NS	NSPC	POINT TUPPER UNIT 3	300	ST	BIT	P	U	
91/Unk	SERC	VAC	SC	DUPC	BAD CREEK 1	250	PS	WAT	U	U	
91/Unk	SERC	VAC	SC	DUPC	BAD CREEK 2	250	PS	WAT	U	U	
SUBTOTAL						10332					

APPENDIX D

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
GENERATING UNIT ADDITIONS
(April 1, 1986 - December 31, 1995)

IN-SVC DATE	REGION	SUBREG	ST/PROV	UTILITY	NAME	MW-S	TYPE	FUEL	STATUS	U/NU	JOINT
92/01	ECAR		MI	CP	SMALL POWER PRODUCERS	2	ZZ	UNK	P	ZZ	
92/01	ERCOT		TX	TMPP	UNDESIGNATED	150	UN	NG	P	U	
92/01	ERCOT		TX	TUEC	TWIN OAK 2	750	ST	LIG	U	U	
92/01	NPCC	NE	MA	COMW	GAS TURBINE	75	GT	F02	P	U	
92/01	NPCC	NY	NY	NIMP	H.E.A.R.	2	HY	WAT	P	U	
92/01	NPCC	ONT	ON	ONHY	COGENERATION	30	CG	UNK	P	CG	
92/01	SERC	SOU	AL	ALAP	THURLOW 4	40	HY	WAT	P	U	
92/01	SERC	SOU	AL	ALAP	YATES 3	30	HY	WAT	P	U	
92/01	WSCC	CNV	CA	PG&E	COGENERATION EOR GAS 92	600	CG	NG	P	CG	
92/01	WSCC	CNV	CA	PG&E	GENERIC COGEN NON-GAS 92	118	CG	UNK	P	CG	
92/01	WSCC	CNV	CA	PG&E	QF PHOTOVOLTAIC 92	1	SO	SUN	P	ZZ	
92/01	WSCC	CNV	CA	PG&E	UNID. DISTR. FP HYDRO 92	2	HY	WAT	P	ZZ	
92/01	WSCC	CNV	CA	PG&E	UNID. DISTR. QF HYDRO 92	2	HY	WAT	P	ZZ	
92/01	WSCC	CNV	CA	PG&E	UNID. PG&E SMALL HYDRO 92	2	HY	WAT	P	U	
92/01	WSCC	CNV	CA	SCE	BEAR BUTTE	22	HY	WAT	P	U	
92/01	WSCC	CNV	CA	SMUD	UNIDENTIFIED PEAKING	50	ZZ	UNK	P	U	
92/01	WSCC	CNV	CA	SMUD	UNIDENTIFIED PEAKING	50	ZZ	UNK	P	U	
92/01	WSCC	CNV	CA	SMUD	UNIDENTIFIED PEAKING	50	ZZ	UNK	P	U	
92/01	WSCC	CNV	UT	NEVP	GENERIC GEOTHERMAL	10	GE	GST	P	U	
92/01	WSCC	NWP	NV	SPP	GEOTHERMAL 2	50	GE	GST	P	U	
92/02	WSCC		MX	CFE	CERRO PRIETO IV UNIT 1	50	GE	GST	L	U	
92/02	WSCC	NWP	OR	USCE	MCNARY 2ND PH 17	129	HY	WAT	P	U	
92/03	ERCOT		TX	TUEC	COMBUSTION TURBINE	300	GT	NG	P	U	
92/03	MAIN	WUM	WI	WPS	HYDRO	1	HY	WAT	P	ZZ	
92/04	ECAR		IN	IP&L	UNDESIGNATED	80	GT	F02	P	U	
92/04	ERCOT		TX	CPSA	UNDESIGNATED	180	GT	NG	P	U	
92/05	MAAC		MD	BCCO	BRANDON SHORES 2	620	ST	BIT	V	U	
92/05	MAAC		MD	DPLC	EASTON UNIDENTIFIED CT	6.2	IC	F02	P	U	
92/05	MAAC		UN	GPUS	COMBINED CYCLE 1	300	CC	NG	P	U	
92/05	MAPP		MB	MHEB	LIMESTONE 8	120	HY	WAT	U	U	
92/05	MAPP		MN	NSP	HENNEPIN ISLAND 6	3	HY	WAT	P	U	
92/05	MAPP		MN	NSP	HENNEPIN ISLAND 7	3	HY	WAT	P	U	
92/05	NPCC	NY	NY	COEN	INDEPENDENT POWER PRODUCERS	70	ZZ	UNK	P	ZZ	
92/05	NPCC	NY	NY	LOIL	INDEPENDENT POWER PRODUCERS	20	ZZ	UNK	P	ZZ	
92/05	NPCC	NY	NY	NEYE	INDEPENDENT POWER PRODUCERS	12	ZZ	UNK	P	ZZ	
92/05	NPCC	NY	NY	POAS	INDEPENDENT POWER PRODUCERS	55	ZZ	UNK	P	ZZ	
92/05	SPP	N	UN	MIPU	RALPH GREEN 1	22	CW	WH	P	U	
92/05	SPP	N	UN	MIPU	RALPH GREEN 2	22	CW	WH	P	U	
92/05	SPP	WC	UN	OKGE	UNKNOWN 92	280	GT	F02	P	U	
92/05	WSCC	NWP	OR	USCE	MCNARY 2ND PH 18	129	HY	WAT	P	U	
92/06	MAIN	WUM	WI	WEP	SMALL UNITS	10	UN	UNK	P	ZZ	
92/06	MAIN	WUM	WI	WPL	SOLID WASTE	5	UN	UNK	P	ZZ	
92/06	NPCC	NY	NY	NIMP	H.E.A.R.	1	HY	WAT	P	U	
92/06	SPP	N	UN	EMDE	UNKNOWN	75	ST	COL	P	U	
92/06	WSCC	CNV	CA	CDWR	MOJAVE SIPHON 1	7	HY	WAT	P	U	
92/06	WSCC	CNV	CA	LDWP	GENERIC 1992	200	ZZ	UNK	P	U	
92/06	WSCC	NWP	UT	UPLC	BLUNDELL 4	14	GE	GST	P	U	
92/07	ERCOT		TX	LCRA	F.P.P. 4 (FAYETTE)	397	ST	LIG	P	U	
92/07	WSCC	CNV	CA	SCE	EDISON GENERIC HYDRO	2	HY	WAT	P	U	
92/07	WSCC	CNV	CA	SCE	FUEL CELL 1	8	FC	UNK	P	U	
92/07	WSCC	CNV	CA	SCE	NON-UTILITY BIOMASS	4	IC	UNK	P	ZZ	
92/08	MAPP		MB	MHEB	LIMESTONE 9	120	HY	WAT	U	U	
92/08	NPCC	ONT	ON	ONHY	DARLINGTON 4	881	CD	UR	U	U	
92/08	WSCC	NWP	OR	USCE	MCNARY 2ND PH 19	129	HY	WAT	P	U	
92/09	NPCC	QUE	QE	HYQB	LG-2 PA 1	316	HY	WAT	T	U	
92/10	ECAR		KY	EKPC	J.K. SMITH 1	600	ST	COL	U	U	
92/11	MAPP		MB	MHEB	LIMESTONE 10	120	HY	WAT	U	U	

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
GENERATING UNIT ADDITIONS
(April 1, 1986 - December 31, 1995)

IN-SVC DATE	REGION	SUBREG	ST/PROV	UTILITY	NAME	MW-S	TYPE	FUEL	STATUS	U/NU	JOINT
92/11	NPCC	QUE	QE	HYQB	LG-2 PA 2	316	HY	WAT	T	U	
92/11	WSCC	NWP	OR	USCE	MCNARY 2ND PH 20	129	HY	WAT	P	U	
92/12	ERCOT		TX	CP&L	CT 1	75	GT	NG	P	U	
92/12	MAAC		UN	GPUS	QUALIFYING FACILITIES	63	ZZ	UNK	P	ZZ	
92/12	MAPP		IA	ISU	BURLINGTON CT 1	50	GT	FO2	P	U	
92/12	WSCC	CNV	CA	PG&E	QF WIND 92	4	WM	WND	P	ZZ	
92/12	WSCC	CNV	CA	PG&E	SMALL QF HYDRO 92	5	HY	WAT	P	ZZ	
92/Unk	SERC	SOU	AL	ALEC	COMBUSTION TURBINE 3	50	CT	FO2	P	U	
92/Unk	SERC	VAC	SC	DUPC	BAD CREEK 3	250	PS	WAT	U	U	
92/Unk	SERC	VAC	SC	DUPC	BAD CREEK 4	250	PS	WAT	U	U	
SUBTOTAL						8519					
93/01	ECAR		MI	CP	SMALL POWER PRODUCERS	2	ZZ	UNK	P	ZZ	
93/01	ERCOT		TX	TMPP	UNDESIGNATED	150	UN	NG	P	U	
93/01	NPCC	ONT	ON	ONHY	COGENERATION	30	CG	UNK	P	CG	
93/01	WSCC		MX	CFE	ROSARITO II #2	145	ST	FO6	T	U	
93/01	WSCC	CNV	CA	PG&E	CRANE VALLEY PROJECT	0	HY	WAT	P	U	
93/01	WSCC	CNV	CA	PG&E	GENERIC COGEN NON-GAS 93	110	CG	UNK	P	CG	
93/01	WSCC	CNV	CA	PG&E	QF PHOTOVOLTAIC 93	1	SO	SUN	P	ZZ	
93/01	WSCC	CNV	CA	PG&E	TULE PROJECT	0	HY	WAT	P	U	
93/01	WSCC	CNV	CA	PG&E	UNID. MAJOR HYDRO 93	25	HY	WAT	P	ZZ	
93/01	WSCC	CNV	CA	PG&E	UNID. PG&E SMALL HYDRO 93	2	HY	WAT	P	U	
93/01	WSCC	CNV	CA	RDNG	LAKE RED BLUFF	4	HY	WAT	L	U	
93/01	WSCC	CNV	CA	RDNG	SPRING CREEK PS	115	PS	WAT	L	U	
93/02	ERCOT		TX	TUEC	FOREST GROVE 1	750	ST	LIG	U	U	
93/02	WSCC		MX	CFE	CERRO PRIETO IV UNIT 2	50	GE	GST	T	U	
93/03	ERCOT		TX	TUEC	COMBUSTION TURBINE	100	GT	NG	P	U	
93/03	MAIN	WUM	WI	WPS	SOLID WASTE	5	ST	WD	P	ZZ	
93/03	MAIN	WUM	WI	WPS	WIND	1	WM	WND	P	ZZ	
93/04	ECAR		IN	PSI	UNDESIGNATED	108	CT	FO2	P	U	
93/04	ECAR		IN	PSI	UNDESIGNATED	108	CT	FO2	P	U	
93/04	ECAR		IN	PSI	UNDESIGNATED	90	CA	FO2	P	U	
93/04	ECAR		OH	CG&E	NEW GT 1	60	GT	FO2	P	U	
93/04	ERCOT		TX	CPSA	UNDESIGNATED	498	ST	LIG	P	U	
93/05	NPCC	NY	NY	LOIL	INDEPENDENT POWER PRODUCERS	20	ZZ	UNK	P	ZZ	
93/05	NPCC	NY	NY	POAS	INDEPENDENT POWER PRODUCERS	5	ZZ	UNK	P	ZZ	
93/05	SPP	N	MO	MIPU	GREENWOOD 1	5	GT	FO2	P	U	
93/05	SPP	N	MO	MIPU	GREENWOOD 2	5	GT	FO2	P	U	
93/05	SPP	N	MO	MIPU	GREENWOOD 3	5	GT	FO2	P	U	
93/05	SPP	N	MO	MIPU	GREENWOOD 4	5	GT	FO2	P	U	
93/05	SPP	WC	UN	OKGE	COGENERATOR - AES	300	ST	BIT	P	CG	
93/06	MAIN	WUM	WI	WPL	WIND	1	WM	WND	P	ZZ	
93/06	NPCC	NY	NY	NIMP	H.E.A.R.	2	HY	WAT	P	U	
93/06	SPP	N	MO	ASEC	WATSON 1	630	ST	BIT	P	U	
93/06	SPP	N	UN	SPRM	UNDETERMINED	60	GT	NG	P	U	
93/06	WSCC	CNV	CA	LDWP	GENERIC 1993	100	ZZ	UNK	P	U	
93/06	WSCC	CNV	NV	LDWP	WHITE PINE 1	750	ST	BIT	P	U	J
93/07	WSCC	CNV	CA	SCE	EDISON GENERIC HYDRO	2	HY	WAT	P	U	
93/09	NPCC	QUE	QE	HYQB	LG-2 PA 3	316	HY	WAT	T	U	
93/10	NPCC	ONT	ON	ONHY	KIPLING GS 1	68	HY	WAT	P	U	
93/10	WSCC	NWP	AB	TAUC	NEW STEAM 1	360	ST	SUB	P	U	
93/11	NPCC	ONT	ON	ONHY	LITTLE JACKFISH 1	66	HY	WAT	P	U	
93/11	NPCC	ONT	ON	ONHY	LITTLE JACKFISH 2	66	HY	WAT	P	U	
93/11	NPCC	QUE	QE	HYQB	LG-2 PA 4	316	HY	WAT	T	U	
93/12	ERCOT		TX	CP&L	CT 2	75	GT	NG	P	U	
93/12	ERCOT		TX	CP&L	CT 3	75	GT	NG	P	U	
93/12	ERCOT		TX	CP&L	CT 4	75	GT	NG	P	U	

APPENDIX D

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
GENERATING UNIT ADDITIONS
(April 1, 1986 - December 31, 1995)

IN-SVC DATE	REGION	SUBREG	ST/PROV	UTILITY	NAME	MW-S	TYPE	FUEL	STATUS	U/NU	JOINT
93/12	ERCOT		TX	HL&P	MALAKOFF 2	645	ST	LIG	P	U	
93/12	ERCOT		TX	WETU	CT 1	75	GT	NG	P	U	
93/12	MAAC		UN	GPUS	QUALIFYING FACILITIES	63	ZZ	UNK	P	ZZ	
93/12	SPP	WC	UN	PSOK	UNDETERMINED	75	GT	NG	P	U	
93/12	SPP	WC	UN	PSOK	UNDETERMINED	75	GT	NG	P	U	
93/12	SPP	WC	UN	SOEP	COMBUSTION TURBINE	225	GT	NG	P	U	
93/12	WSCC	CNV	CA	PG&E	QF WIND 93	4	WM	WND	P	ZZ	
93/12	WSCC	CNV	CA	PG&E	SMALL QF HYDRO 93	4	HY	WAT	P	ZZ	
SUBTOTAL						6827					
94/01	ECAR		MI	CP	SMALL POWER PRODUCERS	2	ZZ	UNK	P	ZZ	
94/01	ERCOT		TX	ST&M	SAN MIGUEL 2	400	ST	LIG	P	U	J
94/01	ERCOT		TX	TUEC	MARTIN LAKE 4	750	ST	LIG	U	U	
94/01	MAPP		NB	OPPD	FUTURE GT 1	80	GT	FO2	P	U	
94/01	NPCC	ONT	ON	ONHY	COGENERATION	30	CG	UNK	P	CG	
94/01	SERC	TVA	AL	TEVA	BELLEFONTE 1	1212	NP	UR	V	U	
94/01	WSCC	CNV	CA	PG&E	GENERIC COGEN NON-GAS 94	98	CG	UNK	P	CG	
94/01	WSCC	CNV	CA	PG&E	QF PHOTOVOLTAIC 94	1	SO	SUN	P	ZZ	
94/01	WSCC	CNV	CA	PG&E	UNID. MAJOR HYDRO 94	25	HY	WAT	P	ZZ	
94/01	WSCC	CNV	CA	PG&E	UNID. PG&E SMALL HYDRO 94	2	HY	WAT	P	U	
94/01	WSCC	CNV	CA	SDGE	UNDETERMINED	100	ZZ	UNK	P	U	
94/01	WSCC	CNV	CA	SMUD	UNIDENTIFIED PEAKING	50	ZZ	UNK	P	U	
94/01	WSCC	CNV	CA	SMUD	UNIDENTIFIED PEAKING	50	ZZ	UNK	P	U	
94/03	ERCOT		TX	TUEC	COMBUSTION TURBINE	100	GT	NG	P	U	
94/03	MAIN	WUM	WI	WPS	COGENERATION	12	ST	COL	P	CG	
94/03	MAIN	WUM	WI	WPS	WIND	1	WM	WND	P	ZZ	
94/04	ECAR		IN	IP&L	UNDESIGNATED	80	GT	FO2	P	U	
94/04	ECAR		OH	CG&E	NEW GT 2	60	GT	FO2	P	U	
94/04	ECAR		OH	CG&E	NEW GT 3	60	GT	FO2	P	U	
94/04	NPCC	ONT	ON	ONHY	SMOKEY FALLS GS 1	90	HY	WAT	P	U	
94/04	NPCC	ONT	ON	ONHY	SMOKEY FALLS GS 2	91	HY	WAT	P	U	
94/04	WSCC	RMP	CO	CCS	NIXON 2	325	ST	BIT	P	U	
94/04	WSCC	RMP	CO	PSC	PAWNEE 2	485	ST	BIT	L	U	
94/05	MAAC		MD	DPLC	EASTON UNIDENTIFIED CT	5	UN	UNK	P	U	
94/05	MAAC		MD	PPCO	UNDETERMINED	125	UN	UNK	P	U	
94/05	NPCC	NY	NY	COEN	INDEPENDENT POWER PRODUCERS	40	ZZ	UNK	P	ZZ	
94/05	NPCC	NY	NY	LOIL	INDEPENDENT POWER PRODUCERS	20	ZZ	UNK	P	ZZ	
94/05	NPCC	NY	NY	POAS	INDEPENDENT POWER PRODUCERS	14	ZZ	UNK	P	ZZ	
94/05	NPCC	NY	NY	POAS	NIAGARA FALLS	300	HY	WAT	L	U	
94/05	SPP	WC	UN	OKGE	UNKNOWN 94	280	GT	FO2	P	U	
94/06	MAIN	WUM	WI	WEP	SMALL UNITS	10	UN	UNK	P	ZZ	
94/06	MAIN	WUM	WI	WPL	WIND	1	WM	WND	P	ZZ	
94/06	SPP	N	MO	EMDE	ENERGY CENTER NO. 4	75	CA	NG	P	U	
94/06	SPP	WC	NM	SWPS	LEA COUNTY 1	74	GT	GAS	P	U	
94/06	WSCC	CNV	CA	LDWP	GENERIC 1994	400	ZZ	UNK	P	U	
94/06	WSCC	CNV	NV	LDWP	WHITE PINE 2	750	ST	BIT	P	U	J
94/06	WSCC	NWP	UT	UPLC	BLUNDELL 5	14	GE	GST	P	U	
94/07	ERCOT		TX	LCRA	UNDESIGNATED	400	ST	SUB	P	U	
94/07	WSCC	CNV	CA	SCE	EDISON GENERIC HYDRO	2	HY	WAT	P	U	
94/07	WSCC	CNV	CA	SCE	NON-UTILITY COGEN	60	CG	UNK	P	CG	
94/09	NPCC	QUE	QE	HYQB	LG-2 PA 5	316	HY	WAT	T	U	
94/10	MAPP		SA	SPC	FUTURE FOSSIL 2	272	ST	LIG	P	U	
94/11	NPCC	NE	ME	BAHE	BASIN HILLS	12.8	HY	WAT	P	U	
94/11	NPCC	ONT	ON	ONHY	HARMON GS 1	68	HY	WAT	P	U	
94/11	NPCC	QUE	QE	HYQB	LG-2 PA 6	316	HY	WAT	T	U	
94/11	WSCC	CNV	CA	PG&E	GEYSERS 22	140	GE	GST	P	U	
94/12	ERCOT		TX	C&SW	COLETO CREEK 2	680	ST	BIT	L	U	J

APPENDIX D

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
GENERATING UNIT ADDITIONS
(April 1, 1986 - December 31, 1995)

IN-SVC DATE	REGION	SUBREG	ST/PROV	UTILITY	NAME	MW-S	TYPE	FUEL	STATUS	U/NU	JOINT
94/12	MAAC		UN	GPUS	QUALIFYING FACILITIES	63	ZZ	UNK	P	ZZ	
94/12	MAIN	WUM	WI	MPU	MANITOWOC 8	60	ST	BIT	P	U	
94/12	WSCC	CNV	CA	PG&E	QF WIND 94	4	WM	WND	P	ZZ	
94/12	WSCC	CNV	CA	PG&E	SMALL QF HYDRO 94	3	HY	WAT	P	ZZ	
94/Sum	MAIN	WUM	WI	MGE	SOLID WASTE	2	UN	REF	P	U	
94/Unk	SERC	SOU	AL	ALEC	COMBUSTION TURBINE 4	50	CT	F02	P	U	
SUBTOTAL						8661					
95/01	ECAR		MI	CP	SMALL POWER PRODUCERS	2	ZZ	UNK	P	ZZ	
95/01	ERCOT		TX	TUEC	UNDESIGNATED	1300	UN	UNK	P	U	
95/01	NPCC	ONT	ON	ONHY	COGENERATION 1	30	CG	UNK	P	CG	
95/01	SERC	FL	FL	FLPC	COMBINED CYCLE 1	426	CC	UNK	P	U	
95/01	SERC	FL	FL	FLPL	COMBINED CYCLE 1	99	CC	NG	P	U	
95/01	SERC	FL	FL	FLPL	COMBINED CYCLE 2	99	CC	NG	P	U	
95/01	SERC	FL	FL	FLPL	COMBINED CYCLE 3	99	CC	NG	P	U	
95/01	SERC	FL	FL	FLPL	COMBINED CYCLE 4	99	CC	NG	P	U	
95/01	SERC	FL	FL	FLPL	COMBINED CYCLE 5	99	CC	NG	P	U	
95/01	SERC	FL	FL	FLPL	COMBINED CYCLE 6	99	CC	NG	P	U	
95/01	SERC	FL	FL	LALW	UNKNOWN 1	50	ST	BIT	P	U	
95/01	SPP	SE	UN	MSUI	FUTURE 1	800	ST	COL	P	U	
95/01	WSCC	CNV	CA	PG&E	GENERIC COGEN NON-GAS 95	75	CG	UNK	P	CG	
95/01	WSCC	CNV	CA	PG&E	QF PHOTOVOLTAIC 95	1	SO	SUN	P	ZZ	
95/01	WSCC	CNV	CA	PG&E	SMALL QF HYDRO 95	2	HY	WAT	P	ZZ	
95/01	WSCC	CNV	CA	PG&E	UNID. MAJOR HYDRO 95	25	HY	WAT	P	ZZ	
95/01	WSCC	CNV	CA	PG&E	UNID. PG&E SMALL HYDRO 95	2	HY	WAT	P	U	
95/01	WSCC	CNV	CA	SDGE	UNDETERMINED	50	ZZ	UNK	P	U	
95/01	WSCC	NWP	NV	SPP	GEOTHERMAL 3	50	GE	GST	P	U	
95/03	MAIN	WUM	WI	WPS	HYDRO	1	HY	WAT	P	ZZ	
95/03	MAIN	WUM	WI	WPS	WIND	1	WM	WND	P	ZZ	
95/03	SPP	SE	LA	CAJN	BIG CAJUN 1, UNIT 3	50	GT	F02	P	U	
95/03	SPP	SE	LA	CAJN	BIG CAJUN 2, UNIT 4	50	GT	F02	F	U	
95/04	ECAR		IN	PSI	UNDESIGNATED	108	CT	F02	P	U	
95/04	ECAR		IN	PSI	UNDESIGNATED	108	CT	F02	P	U	
95/04	ECAR		IN	PSI	UNDESIGNATED	90	CA	F02	P	U	
95/04	ECAR		OH	CG&E	NEW GT 4	60	GT	F02	P	U	
95/04	ECAR		OH	CG&E	NEW GT 5	60	GT	F02	P	U	
95/04	ERCOT		TX	CPSA	UNDESIGNATED 2	498	ST	LIG	P	U	
95/04	SERC	FL	FL	TAEC	UNKNOWN 1	75	GT	F02	P	U	
95/04	SERC	VAC	UN	VIEP	UNDESIGNATED	153	ZZ	UNK	P	U	
95/05	MAAC		MD	PPCO	UNDETERMINED	125	UN	UNK	P	U	
95/05	MAAC		NJ	AECO	UNASSIGNED CT 1	60	GT	KER	P	U	
95/05	MAAC		UN	GPUS	COAL 1	300	ST	BIT	P	U	
95/05	MAPP		ND	NSP	NORTH DAKOTA LIGNITE 1	500	ST	LIG	P	U	J
95/05	NPCC	NY	NY	LOIL	INDEPENDENT POWER PRODUCERS	20	ZZ	UNK	P	ZZ	
95/05	NPCC	NY	NY	POAS	INDEPENDENT POWER PRODUCERS	50	ZZ	UNK	P	ZZ	
95/05	NPCC	NY	NY	POAS	PASNY NEW HYDRO	40	HY	WAT	P	U	
95/05	NPCC	ONT	ON	ONHY	LITTLE LONG GS 1	61	HY	WAT	P	U	
95/05	SPP	N	UN	STJO	BASE CAPACITY	40	ST	SUB	P	U	
95/05	SPP	WC	UN	OKGE	UNKNOWN 95	500	ST	SUB	P	U	
95/06	MAIN	WUM	WI	WPL	WIND	1	WM	WND	P	ZZ	
95/06	SPP	WC	NM	SWPS	LEA COUNTY 2	74	GT	GAS	P	U	
95/06	SPP	WC	NM	SWPS	LEA COUNTY 3	74	GT	GAS	P	U	
95/06	WSCC	CNV	CA	LDWP	COSO 1	50	GE	ZZ	P	U	
95/07	WSCC	CNV	CA	SCE	EDISON GENERIC	400	ZZ	UNK	P	U	
95/07	WSCC	CNV	CA	SCE	NON-UTILITY GENERIC	100	ZZ	UNK	P	ZZ	
95/08	MAIN	WUM	WI	WEP	SMALL UNITS	8	UN	UNK	P	ZZ	

APPENDIX D

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
GENERATING UNIT ADDITIONS
(April 1, 1986 - December 31, 1995)

IN-SVC DATE	REGION	SUBREG	ST/PROV	UTILITY	NAME	MW-S	TYPE	FUEL	STATUS	U/NU	JOINT
95/10	ECAR		UN	APS	COAL 1	300	ST	COL	P	U	
95/10	SERC	VAC	UN	VIEP	UNDESIGNATED	108	ZZ	UNK	P	U	
95/10	WSCC	NWP	AB	TAUC	NEW STEAM 2	360	ST	SUB	P	U	
95/11	WSCC	CNV	CA	PG&E	GEYSERS 23	140	GE	GST	P	U	
95/12	ERCOT		TX	C&SW	WALKER COUNTY A 1	640	ST	LIG	P	U	J
95/12	MAAC		UN	GPUS	QUALIFYING FACILITIES	63	ZZ	UNK	P	ZZ	
95/12	SPP	SE	LA	GUSU	NELSON 5	540	ST	SUB	P	U	
95/12	SPP	WC	UN	PSOK	UNDETERMINED	75	GT	NG	P	U	
95/12	WSCC	CNV	CA	PG&E	QF WIND 95	4	WM	WND	P	ZZ	
95/12	WSCC	NWP	WA	BPA	WNP 1[a]	0[d]	NP	UR	V	U	
95/12	WSCC	NWP	WA	BPA	WNP 3[a]	0[d]	NP	UR	V	U	
95/Unk	NPCC	NS	NS	NSPC	POINT TUPPER UNIT 4	300	ST	BIT	P	U	
95/Unk	SERC	SOU	GA	SAEP	NOT AVAILABLE	37.5	ST	BIT	P	U	
SUBTOTAL						9632					
Under Review[b]	ECAR		OH	CAPCO	PERRY 2	1179[d]	NB	UR	V	U	J
Uncertain[c]	NPCC	NE	NH	PSNH	SEABROOK 2	1150[d]	NP	UR	U	U	J
SUBTOTAL						2329					
TOTAL						103329 (101000)[d]					

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a) Construction suspended on WNP units 1 & 3. Designated as a 2490 MW 'secured option'.

b) Construction activity on Perry 2 has been reduced to a very low level as resources are concentrated on the completion of Perry 1. Meanwhile, all options with respect to the completion and timing of Perry 2 are being evaluated. A decision regarding the completion of Perry 2 is not expected until all options have been evaluated.

c) Seabrook 2 has an uncertain status.

d) WNP 1 (1,250 MW), WNP 3 (1,240 MW), Seabrook 2 (1,150 MW) and Perry 2 (1,179 MW) nuclear units are under review and were not counted as part of the owning utilities' or NERC's capacity during the ten-year forecast period. Therefore, Tables 29, 30 and 31 do not include these four nuclear units. However, they are included here for information.

APPENDIX E

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
NUCLEAR GENERATING UNIT ADDITIONS
(April 1, 1986 - December 31, 1995)

IN-SVC DATE	REGION	SUBREG	ST/PROV	UTILITY	NAME	MW-S	TYPE	FUEL	STATUS	U/NU	JOINT
86/04	ECAR		MI	DECO	FERMI 2	1093	NB	UR	V	U	J
86/04	NPCC	ONT	ON	ONHY	BRUCE 7	835	CD	UR	V	U	
86/04	SPP	SE	LA	GUSU	RIVER BEND 1	940	NB	UR	V	U	J
86/04	WSCC	AZN	AZ	APS	PALO VERDE 2	1270	NP	UR	V	U	J
86/05	NPCC	NE	CT	NOEU	MILLSTONE 3	1150	NP	UR	V	U	J
86/08	MAIN	SCI	IL	IP	CLINTON 1	950	NB	UR	V	U	J
86/09	SERC	TVA	TN	TEVA	WATTS BAR 1[a]	1170	NP	UR	V	U	
86/10	NPCC	NE	NH	PSNH	SEABROOK 1	1150	NP	UR	V	U	J
86/12	MAAC		NJ	PSCO	HOPE CREEK 1	1067	NB	UR	V	U	J
86/40	SERC	VAC	NC	CAPO	HARRIS 1	900	NP	UR	V	U	
b	ECAR		OH	CAPCO	PERRY 1	1179	NB	UR	V	U	J
SUBTOTAL						11704					
87/01	NPCC	NY	NY	NIMP	NINE MILE POINT 2	1080	NP	UR	V	U	J
87/01	NPCC	ONT	ON	ONHY	BRUCE 8	835	CD	UR	V	U	
87/05	MAIN	CE	IL	CECO	BRAIDWOOD 1	1090	NP	UR	V	U	
87/05	MAIN	CE	IL	CECO	BYRON 2	1120	NP	UR	V	U	
87/05	NPCC	NY	NY	LOIL	SHOREHAM	809	NB	UR	V	U	
87/06	SERC	SOU	GA	GEPC	VOGTLE 1	1150	NP	UR	V	U	J
87/06	WSCC	AZN	AZ	APS	PALO VERDE 3	1270	NP	UR	V	U	J
87/07	ERCOT		TX	TUEC	COMANCHE PEAK 1	1150	NP	UR	V	U	J
87/12	ECAR		PA	CAPCO	BEAVER VALLEY 2	820	NP	UR	V	U	J
87/12	ERCOT		TX	HL&P	SOUTH TEXAS PROJECT 1	1250	NP	UR	V	U	J
87/Unk	SERC	VAC	SC	DUPC	CATAWBA 2	1145	NP	UR	V	U	
SUBTOTAL						11719					
88/01	ERCOT		TX	TUEC	COMANCHE PEAK 2	1150	NP	UR	V	U	J
88/02	NPCC	ONT	ON	ONHY	DARLINGTON 1	881	CD	UR	V	U	
88/04	SERC	TVA	TN	TEVA	WATTS BAR 2	1170	NP	UR	V	U	
88/05	NPCC	ONT	ON	ONHY	DARLINGTON 2	881	CD	UR	V	U	
88/09	MAIN	CE	IL	CECO	BRAIDWOOD 2	1090	NP	UR	V	U	
88/09	SERC	SOU	GA	GEPC	VOGTLE 2	1150	NP	UR	U	U	J
SUBTOTAL						6322					
89/06	ERCOT		TX	HL&P	SOUTH TEXAS PROJECT 2	1250	NP	UR	V	U	J
SUBTOTAL						1250					
91/01	MAAC		PA	PECO	LIMERICK 2	1055	NB	UR	U	U	
91/11	NPCC	ONT	ON	ONHY	DARLINGTON 3	881	CD	UR	U	U	
SUBTOTAL						1936					
92/08	NPCC	ONT	ON	ONHY	DARLINGTON 4	881	CD	UR	U	U	
SUBTOTAL						881					
94/01	SERC	TVA	AL	TEVA	BELLEFONTE 1	1212	NP	UR	V	U	
SUBTOTAL						1212					
95/12	WSCC	NWP	WA	BPA	WNP 1	0[c]	NP	UR	V	U	

a) The commercial operation date for Watts Bar Unit 1 is pending a resolution of startup issues with the Nuclear Regulatory Commission.

b) Full reliable operation is expected before the 1986-87 winter peak period. The effective date will depend on fuel load and progress during the test period.

c) See Appendix E, page 2, footnote c.

APPENDIX E

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
NUCLEAR GENERATING UNIT ADDITIONS
(April 1, 1986 - December 31, 1995)

IN-SVC DATE	REGION	SUBREG	ST/PROV	UTILITY	NAME	MW-S	TYPE	FUEL	STATUS	U/NU	JOINT
95/12	WSCC	NWP	WA	BPA	WNP 3	0[c]	NP	UR	V	U	
SUBTOTAL						0					
Under Review[a]	ECAR		OH	CAPCO	PERRY 2	1179[c]	NB	UR	V	U	J
Uncertain[b]	NPCC	NE	NH	PSNH	SEABROOK 2	1150[c]	NP	UR	U	U	J
SUBTOTAL						2329					
TOTAL						37353 (35024)[c]					

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a) Construction activity on Perry 2 has been reduced to a very low level as resources are concentrated on the completion of Perry 1. Meanwhile, all options with respect to the completion and timing of Perry 2 are being evaluated. A decision regarding the completion of Perry 2 is not expected until all options have been evaluated.

b) Seabrook 2 has an uncertain status.

c) WNP 1 (1,250 MW), WNP 3 (1,240 MW), Seabrook 2 (1,150 MW) and Perry 2 (1,179 MW) nuclear units are under review and were not counted as part of the owning utilities' or NERC's capacity during the ten-year forecast period. Therefore, Tables 29, 30 and 31 do not include these four nuclear units. However, they are included here for information.

APPENDIX F

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
COAL-FIRED GENERATING UNIT ADDITIONS
(April 1, 1986 - December 31, 1995)

IN-SVC DATE	REGION	SUBREG	ST/PROV	UTILITY	NAME	MW-S	TYPE	FUEL	STATUS	U/NU	JOINT
86/04	ECAR		IN	IP&L	PETERSBURG 4	515	ST	COL	V	U	
86/04	SPP	WC	LA	SOEP	DOLET HILLS 1	640	ST	LIG	V	U	J
86/04	WSCC	NWP	MT	MPC	COLSTRIP 4	700	ST	BIT	V	U	J
86/06	MAPP		ND	BEPC	ANTELOPE VALLEY 2	450	ST	LIG	V	U	
86/06	SPP	N	MO	EMDE	ASBURY 2	20	ST	BIT	V	U	
86/07	WSCC	CNV	UT	LDWP	INTERMOUNTAIN 1	761	ST	BIT	V	U	J
86/12	ERCOT		TX	C&SW	OKLAUNION 1	665	ST	SUB	V	U	J
86/12	ERCOT		TX	HL&P	LIMESTONE 2	720	ST	LIG	V	U	
SUBTOTAL						4471					
87/01	ECAR		PA	APS	AES BEAVER VALLEY (PURPA)	100	ST	COL	U	ZZ	
87/01	SERC	SOU	GA	GEPC	SCHERER 3	808	ST	BIT	V	U	J
87/04	SERC	FL	FL	JACO	ST. JOHN S 1	550	ST	BIT	V	U	J
87/05	MAPP		MN	NSP	RIVERSIDE 7	51	ST	COL	U	U	
87/07	SERC	FL	FL	ORLA	STANTON 1	415	ST	BIT	V	U	J
87/07	WSCC	CNV	UT	LDWP	INTERMOUNTAIN 2	761	ST	BIT	V	U	J
87/10	WSCC	NWP	WA	TCL	STEAM PLANT NO. 2	37	CG	BIT	P	CG	
87/11	MAPP		MN	NSP	SHERBURNE CO 3	800	ST	SUB	L	U	J
SUBTOTAL						3522					
88/01	ERCOT		TX	LCRA	F.P.P. 3 (FAYETTE)	397	ST	LIG	U	U	
88/03	MAIN	WUM	WI	WPS	COGENERATION PLANT	12	ST	COL	P	CG	
88/10	SERC	FL	FL	JACO	ST. JOHN'S 2	550	ST	BIT	V	U	J
88/12	ECAR		IN	AEP	ROCKPORT 2	1300	ST	COL	U	U	
SUBTOTAL						2259					
89/02	SERC	SOU	GA	GEPC	SCHERER 4	808	ST	BIT	U	U	J
89/05	SERC	SOU	AL	ALAP	MILLER 3	666	ST	BIT	U	U	
89/10	WSCC	NWP	AB	EDMP	GENESEE 2	386	ST	SUB	U	U	
SUBTOTAL						1860					
90/06	WSCC	AZN	AZ	TEP	SPRINGERVILLE 2	360	ST	SUB	U	U	
90/10	WSCC	NWP	AB	TAUC	SHEERNESS 2	366	ST	SUB	U	U	J
90/10	WSCC	RMP	CO	CUEA	NUCLA 4	64	ST	BIT	U	U	
SUBTOTAL						790					
91/01	ERCOT		TX	TUEC	TWIN OAK 1	750	ST	LIG	U	U	
91/05	SERC	SOU	AL	ALAP	MILLER 4	666	ST	BIT	U	U	
91/07	WSCC	AZN	AZ	SRP	CORONADO 3	350	ST	SUB	U	U	
91/06	ECAR		OH	CG&E	W.H. ZIMMER 1	1300	ST	COL	U	U	J
91/07	ECAR		KY	LG&E	TRIMBLE COUNTY 1	495	ST	COL	U	U	
91/10	MAPP		SA	SPC	FUTURE FOSSIL 1	272	ST	LIG	P	U	
91/10	WSCC	NWP	AB	EDMP	GENESEE 1	386	ST	SUB	U	U	
91/12	ERCOT		TX	HL&P	MALAKOFF 1	645	ST	LIG	P	U	
91/10	SERC	VAC	NC	CAPO	MAYO 2	720	ST	COL	U	U	
91/Unk	NPCC	NS	NS	NSPC	POINT TUPPER UNIT 3	300	ST	BIT	P	U	
SUBTOTAL						5884					
92/01	ERCOT		TX	TUEC	TWIN OAK 2	750	ST	LIG	U	U	
92/05	MAAC		MD	BCCO	BRANDON SHORES 2	620	ST	BIT	V	U	
92/06	SPP	N	UN	EMDE	UNKNOWN	75	ST	COL	P	U	
92/07	ERCOT		TX	LCRA	F.P.P. 4 (FAYETTE)	397	ST	LIG	P	U	
92/10	ECAR		KY	EKPC	J.K. SMITH 1	600	ST	COL	U	U	
SUBTOTAL						2442					

APPENDIX F

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
COAL-FIRED GENERATING UNIT ADDITIONS
* (April 1, 1986 - December 31, 1995)

IN-SVC DATE	REGION	SUBREG	ST/PROV	UTILITY	NAME	MW-S	TYPE	FUEL	STATUS	U/NU	JOINT
93/02	ERCOT		TX	TUEC	FOREST GROVE 1	750	ST	LIG	U	U	
93/04	ERCOT		TX	CPSA	UNDESIGNATED	498	ST	LIG	P	U	
93/05	SPP	WC	UN	OKGE	COGENERATOR - AES	300	ST	BIT	P	CG	
93/06	SPP	N	MO	ASEC	WATSON 1	630	ST	BIT	P	U	
93/06	WSCC	CNV	NV	LDWP	WHITE PINE 1	750	ST	BIT	P	U	J
93/10	WSCC	NWP	AB	TAUC	NEW STEAM 1	360	ST	SUB	P	U	
93/12	ERCOT		TX	HL&P	MALAKOFF 2	645	ST	LIG	P	U	
SUBTOTAL						3933					
94/01	ERCOT		TX	ST&M	SAN MIGUEL 2	400	ST	LIG	P	U	J
94/01	ERCOT		TX	TUEC	MARTIN LAKE 4	750	ST	LIG	U	U	
94/03	MAIN	WUM	WI	WPS	COGENERATION	12	ST	COL	P	CG	
94/04	WSCC	RMP	CO	CCS	NIXON 2	325	ST	BIT	P	U	
94/04	WSCC	RMP	CO	PSC	PAWNEE 2	485	ST	BIT	L	U	
94/06	WSCC	CNV	NV	LDWP	WHITE PINE 2	750	ST	BIT	P	U	J
94/07	ERCOT		TX	LCRA	UNDESIGNATED	400	ST	SUB	P	U	
94/10	MAPP		SA	SPC	FUTURE FOSSIL 2	272	ST	LIG	P	U	
94/12	ERCOT		TX	C&SW	COLETO CREEK 2	680	ST	BIT	L	U	J
94/12	MAIN	WUM	WI	MPU	MANITOWOC 8	60	ST	BIT	P	U	
SUBTOTAL						4134					
95/01	SERC	FL	FL	LALW	UNKNOWN 1	50	ST	BIT	P	U	
95/01	SPP	SE	UN	MSUI	FUTURE 1	800	ST	COL	P	U	
95/04	ERCOT		TX	CPSA	UNDESIGNATED 2	498	ST	LIG	P	U	
95/05	MAAC		UN	GPUS	COAL 1	300	ST	BIT	P	U	
95/05	MAPP		ND	NSP	NORTH DAKOTA LIGNITE 1	500	ST	LIG	P	U	J
95/05	SPP	N	UN	STJO	BASE CAPACITY	40	ST	SUB	P	U	
95/05	SPP	WC	UN	OKGE	UNKNOWN 95	500	ST	SUB	P	U	
95/10	ECAR		UN	APS	COAL 1	300	ST	COL	P	U	
95/10	WSCC	NWP	AB	TAUC	NEW STEAM 2	360	ST	SUB	P	U	
95/12	ERCOT		TX	C&SW	WALKER COUNTY A 1	640	ST	LIG	P	U	J
95/12	SPP	SE	LA	GUSU	NELSON 5	540	ST	SUB	P	U	
95/Unk	NPCC	NS	NS	NSPC	POINT TUPPER UNIT 4	300	ST	BIT	P	U	
95/Unk	SERC	SOU	GA	SAEP	NOT AVAILABLE	37.5	ST	BIT	P	U	
SUBTOTAL						4866					
TOTAL						34161					

APPENDIX G

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
NON-UTILITY[a] GENERATING UNIT ADDITIONS
(April 1, 1986 - December 31, 1995)

IN-SVC DATE	REGION	SUBREG	ST/PROV	UTILITY	NAME	MW-S	TYPE	FUEL	STATUS	U/NU	JOINT
86/04	WSCC	CNV	CA	PG&E	FAIRHAVEN POWER CO.	22	ZZ	ZZ	P	ZZ	
86/04	WSCC	NWP	WA	TCL	MAIN CANAL HEADWORKS	22	HY	WAT	V	ZZ	
86/04	WSCC	RMP	CO	PSC	SUNSHINE HYDRO	1	HY	WAT	P	ZZ	
86/05	NPCC	NY	NY	LOIL	INDEPENDENT POWER PRODUCERS	2	ZZ	UNK	P	ZZ	
86/05	NPCC	NY	NY	NEYE	INDEPENDENT POWER PRODUCERS	2.7	ZZ	UNK	P	ZZ	
86/05	NPCC	NY	NY	NIMP	IND. POWER PRODUCERS	130.2	ZZ	UNK	P	ZZ	
86/05	WSCC	CNV	CA	USMP	WEBER GT	9	CG	NG	V	CG	
86/05	WSCC	NWP	OR	PGE	MARION CO. SOLID WASTE	15	CG	REF	P	CG	
86/06	WSCC	CNV	CA	USMP	STOVALL UNIT 1	.5	HY	WAT	V	ZZ	
86/06	WSCC	CNV	CA	USMP	STOVALL UNIT 2	.5	HY	WAT	V	ZZ	
86/07	WSCC	CNV	CA	SCE	NON-UTILITY BIOMASS	50	IC	ZZ	P	ZZ	
86/07	WSCC	CNV	CA	SCE	NON-UTILITY COGEN	109	CG	ZZ	P	CG	
86/07	WSCC	CNV	CA	SCE	NON-UTILITY GEOTHERMAL	116	GE	GST	P	ZZ	
86/07	WSCC	CNV	CA	SCE	NON-UTILITY SOLAR	30	SO	SUN	P	ZZ	
86/07	WSCC	CNV	CA	SCE	NON-UTILITY WIND	41	WM	WND	P	ZZ	
86/07	WSCC	RMP	CO	PSC	BOULDER WASTE	1	CG	REF	V	CG	
86/12	WSCC	CNV	CA	LDWP	COGENERATION	25	CG	UNK	P	CG	
86/12	WSCC	CNV	CA	PG&E	QF WIND 86	37	WM	WND	P	ZZ	
86/12	WSCC	CNV	CA	PG&E	SMALL QF HYDRO 86	12	HY	WAT	P	ZZ	
SUBTOTAL						626					
87/01	ECAR		MI	CP	SMALL POWER PRODUCERS	19	ZZ	UNK	P	ZZ	
87/01	ECAR		PA	APS	AES BEAVER VALLEY (PURPA)	100	ST	COL	U	ZZ	
87/01	WSCC	CNV	CA	PG&E	BOWMAN	3	HY	WAT	P	ZZ	
87/01	WSCC	CNV	CA	PG&E	GENERIC COGEN GAS 87	414	CG	NG	P	CG	
87/01	WSCC	CNV	CA	PG&E	GENERIC COGEN NON-GAS 87	332	CG	UNK	P	CG	
87/01	WSCC	CNV	CA	PG&E	SAND BAR	12	HY	WAT	L	ZZ	
87/01	WSCC	CNV	CA	PG&E	UNID. DISTR. FP HYDRO 87	2	HY	WAT	P	ZZ	
87/01	WSCC	CNV	CA	PG&E	UNID. DISTR. QF HYDRO 87	2	HY	WAT	P	ZZ	
87/01	WSCC	NWP	ID	IPC	COGEN NO. 4	6	CG	UNK	P	CG	
87/03	MAIN	WUM	WI	WPS	HYDRO	1	HY	WAT	P	ZZ	
87/04	WSCC	RMP	CO	PSC	BETASSO HYDRO	3	HY	WAT	T	ZZ	
87/04	WSCC	RMP	CO	PSC	INTERNATIONAL ENERGY	3	ZZ	ZZ	P	ZZ	
87/04	WSCC	RMP	CO	PSC	THERMO POWER	63	CG	NG	L	CG	
87/05	NPCC	NY	NY	NIMP	INDEPENDENT POWER PRODUCERS	149	ZZ	UNK	P	ZZ	
87/06	MAIN	WUM	WI	WEP	SMALL UNITS	20	UN	UNK	P	ZZ	
87/06	WSCC	CNV	CA	LDWP	COGENERATION	45	CG	UNK	P	CG	
87/06	WSCC	RMP	CO	PSC	BLUE RIVER	2	HY	WAT	P	ZZ	
87/06	WSCC	RMP	CO	PSC	CTDC	75	CG	NG	T	CG	
87/06	WSCC	RMP	CO	PSC	NORTH FORK HYDRO	6	HY	WAT	P	ZZ	
87/07	WSCC	CNV	CA	SCE	NON-UTILITY BIOMASS	178	IC	UNK	P	ZZ	
87/07	WSCC	CNV	CA	SCE	NON-UTILITY COGEN	79	CG	UNK	P	CG	
87/07	WSCC	CNV	CA	SCE	NON-UTILITY COGEN	96	CG	UNK	P	CG	
87/07	WSCC	CNV	CA	SCE	NON-UTILITY GEOTHERMAL	86	GE	GST	P	ZZ	
87/07	WSCC	CNV	CA	SCE	NON-UTILITY SOLAR	12	SO	SUN	P	ZZ	
87/07	WSCC	CNV	CA	SCE	NON-UTILITY WIND	41	WM	WND	P	ZZ	
87/10	WSCC	CNV	CA	PG&E	CHOWCHILLA BIOMASS PP	7	ZZ	ZZ	P	ZZ	
87/10	WSCC	CNV	CA	PG&E	SHELL-MARTINEZ COGEN	49	CG	NG	P	CG	
87/10	WSCC	NWP	WA	TCL	STEAM PLANT NO. 2	37	CG	BIT	P	CG	
87/12	MAAC		UN	GPUS	QUALIFYING FACILITIES	63	ZZ	UNK	P	ZZ	

a) Non-utility generation includes cogeneration and small power production facilities under the Public Utility Regulatory Policies Act (PURPA) of 1978 and any other non-utility generation not covered by PURPA but reported by electric utilities. These non-utility units are planned to operate as electric generators connected to electric utility systems. The capacities shown for non-utility generation may include more than one unit.

APPENDIX G
NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
NON-UTILITY[a] GENERATING UNIT ADDITIONS
(April 1, 1986 - December 31, 1995)

IN-SVC DATE	REGION	SUBREG	ST/PROV	UTILITY	NAME	MW-S	TYPE	FUEL	STATUS	U/NU	JOINT
87/12	WSCC	CNV	CA	PG&E	QF WIND 87	8	WM	WND	P	ZZ	
87/12	WSCC	CNV	CA	PG&E	SMALL QF HYDRO 87	12	HY	WAT	P	ZZ	
SUBTOTAL						1925					
88/01	ECAR		MI	CP	SMALL POWER PRODUCERS	20	ZZ	UNK	P	ZZ	
88/01	ECAR		PA	APS	ALLEGHENY LK&D #5 (PURPA)	4	HY	WAT	P	ZZ	
88/01	WSCC	CNV	CA	PG&E	COGENERATION EOR GAS 88	600	CG	NG	P	CG	
88/01	WSCC	CNV	CA	PG&E	GENERIC COGEN NON-GAS 88	148	CG	UNK	P	CG	
88/01	WSCC	CNV	CA	PG&E	UNID. DISTR. FP HYDRO 88	2	HY	WAT	P	ZZ	
88/01	WSCC	CNV	CA	PG&E	UNID. DISTR. QF HYDRO 88	2	HY	WAT	P	ZZ	
88/01	WSCC	CNV	CA	USMP	MUNICIPAL WASTE PP	4	CG	REF	T	CG	
88/01	WSCC	CNV	CA	USMP	WARM SPRINGS DAM	1	HY	WAT	T	ZZ	
88/01	WSCC	NWP	ID	WWPC	MISC. SMALL HYDRO	1	HY	WAT	L	ZZ	
88/03	MAIN	WUM	WI	WPS	COGENERATION PLANT	12	ST	COL	P	CG	
88/04	WSCC	NWP	ID	SCL	LUCKY PEAK	100	HY	WAT	U	ZZ	
88/05	NPCC	NY	NY	LOIL	INDEPENDENT POWER PRODUCERS	20	ZZ	UNK	P	ZZ	
88/05	NPCC	NY	NY	NIMP	INDEPENDENT POWER PRODUCERS	101.7	ZZ	UNK	P	ZZ	
88/05	NPCC	NY	NY	POAS	INDEPENDENT POWER PRODUCERS	1	ZZ	UNK	P	ZZ	
88/06	MAIN	WUM	WI	WEP	SMALL UNITS	10	UN	UNK	P	ZZ	
88/07	ECAR		WV	APS	HANNIBAL LK&D (PURPA)	19	HY	WAT	P	ZZ	
88/07	WSCC	CNV	CA	SCE	NON-UTILITY BIOMASS	59	IC	UNK	P	ZZ	
88/07	WSCC	CNV	CA	SCE	NON-UTILITY COGEN	270	CG	ZZ	P	CG	
88/07	WSCC	CNV	CA	SCE	NON-UTILITY COGEN	395	CG	UNK	P	CG	
88/07	WSCC	CNV	CA	SCE	NON-UTILITY GEOTHERMAL	10	GE	GST	P	ZZ	
88/07	WSCC	CNV	CA	SCE	NON-UTILITY SOLAR	12	SO	SUN	P	ZZ	
88/10	WSCC	CNV	CA	PG&E	OWID: ROCK CREEK II	30	HY	WAT	L	ZZ	
88/12	MAAC		UN	GPUS	QUALIFYING FACILITIES	63	ZZ	UNK	P	ZZ	
88/12	WSCC	CNV	CA	PG&E	QF WIND 88	7	WM	WND	P	ZZ	
98/12	WSCC	CNV	CA	PG&E	SMALL QF HYDRO 88	23	HY	WAT	P	ZZ	
SUBTOTAL						1915					
89/01	ECAR		MI	CP	SMALL POWER PRODUCERS	20	ZZ	UNK	P	ZZ	
89/01	NPCC	NE	UN	Unk	W. RUTLAND (3rd Party Dev.)	230	CC	NG	P	ZZ	
89/01	WSCC	CNV	CA	PG&E	GENERIC COGEN NON-GAS 89	237	CG	UNK	P	CG	
89/01	WSCC	CNV	CA	PG&E	SOFAR	110	HY	WAT	P	ZZ	
89/01	WSCC	CNV	CA	PG&E	UNID. DISTR. FP HYDRO 89	2	HY	WAT	P	ZZ	
89/01	WSCC	CNV	CA	PG&E	UNID. DISTR. QF HYDRO 89	2	HY	WAT	P	ZZ	
89/01	WSCC	NWP	ID	IPC	COGEN NO. 5	1	CG	UNK	P	CG	
89/01	WSCC	NWP	ID	WWPC	MISC. SMALL HYDRO	1	HY	WAT	L	ZZ	
89/0[illegible]	MAIN	WUM	WI	WPS	SOLID WASTE	5	ST	WD	P	ZZ	
89/05	NPCC	NY	NY	LOIL	INDEPENDENT POWER PRODUCERS	20	ZZ	UNK	P	ZZ	
89/05	NPCC	NY	NY	NIMP	INDEPENDENT POWER PRODUCERS	31.8	ZZ	UNK	P	ZZ	
89/05	NPCC	NY	NY	POAS	INDEPENDENT POWER PRODUCERS	5	ZZ	UNK	P	ZZ	
89/06	MAIN	WUM	WI	WEP	SMALL UNITS	10	UN	REF	P	ZZ	
89/07	WSCC	CNV	CA	SCE	NON-UTILITY BIOMASS	65	IC	ZZ	P	ZZ	
89/07	WSCC	CNV	CA	SCE	NON-UTILITY COGEN	42	CG	NG	P	CG	
89/07	WSCC	CNV	CA	SCE	NON-UTILITY COGEN	43	CG	UNK	P	CG	
89/07	WSCC	CNV	CA	SCE	NON-UTILITY GEOTHERMAL	111	GE	GST	P	ZZ	
89/07	WSCC	CNV	CA	SCE	NON-UTILITY SOLAR	6	SO	SUN	P	ZZ	
89/10	WSCC	CNV	CA	PG&E	FRENCH CREEK	0	HY	WAT	P	ZZ	
89/12	MAAC		UN	GPUS	QUALIFYING FACILITIES	63	ZZ	UNK	P	ZZ	
89/12	WSCC	CNV	CA	PG&E	QF WIND 89	7	WM	WND	P	ZZ	
89/12	WSCC	CNV	CA	PG&E	SMALL QF HYDRO 89	10	HY	WAT	P	ZZ	
SUBTOTAL						1022					

a) See Appendix G, page 1, footnote a.

APPENDIX G

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
NON-UTILITY[a] GENERATING UNIT ADDITIONS
(April 1, 1986 - December 31, 1995)

IN-SVC DATE	REGION	SUBREG	ST/PROV	UTILITY	NAME	MW-S	TYPE	FUEL	STATUS	U/NU	JOINT
90/01	ECAR		MI	CP	SMALL POWER PRODUCERS	20	ZZ	UNK	P	ZZ	
90/01	NPCC	NE	UN	Unk	OCEAN ST. PWR.(3rd Party Dev.)	230	CC	NG	P	ZZ	
90/01	NPCC	ONT	ON	ONHY	COGENERATION	30	CG	UNK	P	CG	
90/01	WSCC	CNV	CA	PG&E	COGENERATION EOR GAS 90	600	CG	NG	P	CG	
90/01	WSCC	CNV	CA	PG&E	GENERIC COGEN NON-GAS 90	130	CG	UNK	P	CG	
90/01	WSCC	CNV	CA	PG&E	UNID. DISTR. FP HYDRO 90	2	HY	WAT	P	ZZ	
90/01	WSCC	CNV	CA	PG&E	UNID. DISTR. QF HYDRO 90	2	HY	WAT	P	ZZ	
90/03	MAIN	WUM	WI	WPS	WOOD	10	ST	WD	P	ZZ	
90/05	NPCC	NY	NY	CEHG	INDEPENDENT POWER PRODUCERS	15.6	ZZ	UNK	P	ZZ	
90/05	NPCC	NY	NY	LOIL	INDEPENDENT POWER PRODUCERS	20	ZZ	UNK	P	ZZ	
90/05	NPCC	NY	NY	NIMP	INDEPENDENT POWER PRODUCERS	223.5	ZZ	UNK	P	ZZ	
90/05	NPCC	NY	NY	POAS	INDEPENDENT POWER PRODUCERS	19	ZZ	UNK	P	ZZ	
90/07	WSCC	CNV	CA	SCE	NON-UTILITY BIOMASS	6	IC	UNK	P	ZZ	
90/07	WSCC	CNV	CA	SCE	NON-UTILITY COGEN	56	CG	UNK	P	CG	
90/07	WSCC	CNV	CA	SCE	NON-UTILITY COGEN	78	CG	NG	P	CG	
90/07	WSCC	CNV	CA	SCE	NON-UTILITY GEOTHERMAL	45	GE	GST	P	ZZ	
90/07	WSCC	CNV	CA	SCE	NON-UTILITY SOLAR	6	SO	SUN	P	ZZ	
90/12	MAAC		UN	GPUS	QUALIFYING FACILITIES	63	ZZ	UNK	P	ZZ	
90/12	WSCC	CNV	CA	PG&E	QF WIND 90	7	WM	WND	P	ZZ	
90/12	WSCC	CNV	CA	PG&E	SMALL QF HYDRO 90	9	HY	WAT	P	ZZ	
SUBTOTAL						1572					
91/01	ECAR		MI	CP	SMALL POWER PRODUCERS	2	ZZ	UNK	P	ZZ	
91/01	NPCC	ONT	ON	ONHY	COGENERATION	30	CG	UNK	P	CG	
91/01	WSCC	CNV	CA	PG&E	GENERIC COGEN NON-GAS 91	124	CG	UNK	P	CG	
91/01	WSCC	CNV	CA	PG&E	UNID. DISTR. FP HYDRO 91	2	HY	WAT	P	ZZ	
91/01	WSCC	CNV	CA	PG&E	UNID. DISTR. QF HYDRO 91	2	HY	WAT	P	ZZ	
91/03	MAIN	WUM	WI	WPS	HYDRO	1	HY	WAT	P	ZZ	
91/05	NPCC	NY	NY	LOIL	INDEPENDENT POWER PRODUCERS	20	ZZ	UNK	P	ZZ	
91/05	NPCC	NY	NY	NIMP	INDEPENDENT POWER PRODUCERS	40	ZZ	UNK	P	ZZ	
91/05	NPCC	NY	NY	POAS	INDEPENDENT POWER PRODUCERS	5	ZZ	UNK	P	ZZ	
91/06	MAIN	WUM	WI	WEP	SMALL UNITS	10	UN	REF	P	ZZ	
91/06	MAIN	WUM	WI	WPL	NEW CO-GEN. 1	11	UN	UNK	P	CG	
91/07	WSCC	CNV	CA	SCE	NON-UTILITY COGEN	42	CG	NG	P	CG	
91/07	WSCC	CNV	CA	SCE	NON-UTILITY SOLAR	6	SO	SUN	P	ZZ	
91/12	MAAC		UN	GPUS	QUALIFYING FACILITIES	63	ZZ	UNK	P	ZZ	
91/12	WSCC	CNV	CA	PG&E	QF WIND 91	7	WM	WND	P	ZZ	
91/12	WSCC	CNV	CA	PG&E	SMALL QF HYDRO 91	8	HY	WAT	P	ZZ	
91/Sum	MAIN	WUM	WI	MGE	COGENERATION	12	UN	UNK	P	CG	
SUBTOTAL						385					
92/01	ECAR		MI	CP	SMALL POWER PRODUCERS	2	ZZ	UNK	P	ZZ	
92/01	NPCC	ONT	ON	ONHY	COGENERATION	30	CG	UNK	P	CG	
92/01	WSCC	CNV	CA	PG&E	COGENERATION EOR GAS 92	600	CG	NG	P	CG	
92/01	WSCC	CNV	CA	PG&E	GENERIC COGEN NON-GAS 92	118	CG	UNK	P	CG	
92/01	WSCC	CNV	CA	PG&E	QF PHOTOVOLTAIC 92	1	SO	SUN	P	ZZ	
92/01	WSCC	CNV	CA	PG&E	UNID. DISTR. FP HYDRO 92	2	HY	WAT	P	ZZ	
92/01	WSCC	CNV	CA	PG&E	UNID. DISTR. QF HYDRO 92	2	HY	WAT	P	ZZ	
92/03	MAIN	WUM	WI	WPS	HYDRO	1	HY	WAT	P	ZZ	
92/05	NPCC	NY	NY	COEN	INDEPENDENT POWER PRODUCERS	70	ZZ	UNK	P	ZZ	
92/05	NPCC	NY	NY	LOIL	INDEPENDENT POWER PRODUCERS	20	ZZ	UNK	P	ZZ	
92/05	NPCC	NY	NY	NEYE	INDEPENDENT POWER PRODUCERS	12	ZZ	UNK	P	ZZ	
92/05	NPCC	NY	NY	POAS	INDEPENDENT POWER PRODUCERS	55	ZZ	UNK	P	ZZ	
92/06	MAIN	WUM	WI	WEP	SMALL UNITS	10	UN	UNK	P	ZZ	

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[a] See Appendix G, page 1, footnote a.

APPENDIX G

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
NON-UTILITY[a] GENERATING UNIT ADDITIONS
(April 1, 1986 - December 31, 1995)

IN-SVC DATE	REGION	SUBREG	ST/PROV	UTILITY	NAME	MW-S	TYPE	FUEL	STATUS	U/NU	JOINT
92/06	MAIN	WUM	WI	WPL	SOLID WASTE	5	UN	UNK	P	ZZ	
92/07	WSCC	CNV	CA	SCE	NON-UTILITY BIOMASS	4	IC	UNK	P	ZZ	
92/12	MAAC		UN	GPUS	QUALIFYING FACILITIES	63	ZZ	UNK	P	ZZ	
92/12	WSCC	CNV	CA	PG&E	QF WIND 92	4	WM	WND	P	ZZ	
92/12	WSCC	CNV	CA	PG&E	SMALL QF HYDRO 92	5	HY	WAT	P	ZZ	
SUBTOTAL						1004					
93/01	ECAR		MI	CP	SMALL POWER PRODUCERS	2	ZZ	UNK	P	ZZ	
93/01	NPCC	ONT	ON	ONHY	COGENERATION	30	CG	UNK	P	CG	
93/01	WSCC	CNV	CA	PG&E	GENERIC COGEN NON-GAS 93	110	CG	UNK	P	CG	
93/01	WSCC	CNV	CA	PG&E	QF PHOTOVOLTAIC 93	1	SO	SUN	P	ZZ	
93/01	WSCC	CNV	CA	PG&E	UNID. MAJOR HYDRO 93	25	HY	WAT	P	ZZ	
93/03	MAIN	WUM	WI	WPS	SOLID WASTE	5	ST	WD	P	ZZ	
93/03	MAIN	WUM	WI	WPS	WIND	1	WM	WND	P	ZZ	
93/05	NPCC	NY	NY	LOIL	INDEPENDENT POWER PRODUCERS	20	ZZ	UNK	P	ZZ	
93/05	NPCC	NY	NY	POAS	INDEPENDENT POWER PRODUCERS	5	ZZ	UNK	P	ZZ	
93/05	SPP	WC	UN	OKGE	COGENERATOR - AES	300	ST	BIT	P	CG	
93/06	MAIN	WUM	WI	WPL	WIND	1	WM	WND	P	ZZ	
93/12	MAAC		UN	GPUS	QUALIFYING FACILITIES	63	ZZ	UNK	P	ZZ	
93/12	WSCC	CNV	CA	PG&E	QF WIND 93	4	WM	WND	P	ZZ	
93/12	WSCC	CNV	CA	PG&E	SMALL QF HYDRO 93	4	HY	WAT	P	ZZ	
SUBTOTAL						571					
94/01	ECAR		MI	CP	SMALL POWER PRODUCERS	2	ZZ	UNK	P	ZZ	
94/01	NPCC	ONT	ON	ONHY	COGENERATION	30	CG	UNK	P	CG	
94/01	WSCC	CNV	CA	PG&E	GENERIC COGEN NON-GAS 94	98	CG	UNK	P	CG	
94/01	WSCC	CNV	CA	PG&E	QF PHOTOVOLTAIC 94	1	SO	SUN	P	ZZ	
94/01	WSCC	CNV	CA	PG&E	UNID. MAJOR HYDRO 94	25	HY	WAT	P	ZZ	
94/03	MAIN	WUM	WI	WPS	COGENERATION	12	ST	COL	P	CG	
94/03	MAIN	WUM	WI	WPS	WIND	1	WM	WND	P	ZZ	
94/05	NPCC	NY	NY	COEN	INDEPENDENT POWER PRODUCERS	40	ZZ	UNK	P	ZZ	
94/05	NPCC	NY	NY	LOIL	INDEPENDENT POWER PRODUCERS	20	ZZ	UNK	P	ZZ	
94/05	NPCC	NY	NY	POAS	INDEPENDENT POWER PRODUCERS	14	ZZ	UNK	P	ZZ	
94/06	MAIN	WUM	WI	WEP	SMALL UNITS	10	UN	UNK	P	ZZ	
94/06	MAIN	WUM	WI	WPL	WIND	1	WM	WND	P	ZZ	
94/07	WSCC	CNV	CA	SCE	NON-UTILITY COGEN	60	CG	UNK	P	CG	
94/12	MAAC		UN	GPUS	QUALIFYING FACILITIES	63	ZZ	UNK	P	ZZ	
94/12	WSCC	CNV	CA	PG&E	QF WIND 94	4	WM	WND	P	ZZ	
94/12	WSCC	CNV	CA	PG&E	SMALL QF HYDRO 94	3	HY	WAT	P	ZZ	
SUBTOTAL						384					
95/01	ECAR		MI	CP	SMALL POWER PRODUCERS	2	ZZ	UNK	P	ZZ	
95/01	NPCC	ONT	ON	ONHY	COGENERATION 1	30	CG	UNK	P	CG	
95/01	WSCC	CNV	CA	PG&E	GENERIC COGEN NON-GAS 95	75	CG	UNK	P	CG	
95/01	WSCC	CNV	CA	PG&E	QF PHOTOVOLTAIC 95	1	SO	SUN	P	ZZ	
95/01	WSCC	CNV	CA	PG&E	SMALL QF HYDRO 95	2	HY	WAT	P	ZZ	
95/01	WSCC	CNV	CA	PG&E	UNID. MAJOR HYDRO 95	25	HY	WAT	P	ZZ	
95/03	MAIN	WUM	WI	WPS	HYDRO	1	HY	WAT	P	ZZ	
95/03	MAIN	WUM	WI	WPS	WIND	1	WM	WND	P	ZZ	
95/05	NPCC	NY	NY	LOIL	INDEPENDENT POWER PRODUCERS	20	ZZ	UNK	P	ZZ	
95/05	NPCC	NY	NY	POAS	INDEPENDENT POWER PRODUCERS	50	ZZ	UNK	P	ZZ	
95/06	MAIN	WUM	WI	WPL	WIND	1	WM	WND	P	ZZ	
95/07	WSCC	CNV	CA	SCE	NON-UTILITY GENERIC	100	ZZ	UNK	P	ZZ	
95/08	MAIN	WUM	WI	WEP	SMALL UNITS	8	UN	UNK	P	ZZ	

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a) See Appendix G, page 1, footnote a.

APPENDIX G
NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
NON-UTILITY[a] GENERATING UNIT ADDITIONS
(April 1, 1986 - December 31, 1995)

IN-SVC DATE	REGION	SUBREG	ST/PROV	UTILITY	NAME	MW-S	TYPE	FUEL	STATUS	U/NU	JOINT
95/12	MAAL		UN	GPUS	QUALIFYING FACILITIES	63	ZZ	UNK	P	ZZ	
95/12	WSCC	CNV	CA	PG&E	OF WIND 95	4	WM	WND	P	ZZ	
SUBTOTAL						363					
TOTAL						9787					

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a) See Appendix G, page 1, footnote a

APPENDIX II

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
JOINTLY-OWNED GENERATING UNIT ADDITIONS
(April 1, 1986 - December 31, 1995)

IN-SVC DATE	REGION	NAME	MW-S	TYPE	FUEL	COMMENTS
86/04	ECAR	FERMI 2	1093	NB	UR	DECO(940MW),WPSC(153)
86/04	MAAC	SAFE HARBOR 11	38	HY	WAT	BCCO(25MW),PLCO(12.5)
86/04	SPP	DOLET HILLS 1	640	ST	LIG	SOEP(257MW),CELE(320),OMPA(25),NTEC(38)
86/04	SPP	RIVER BEND 1	940	NB	UR	GUSU(658MW),CAJN(282)
86/04	WSCC	COLSTRIP 4	700	ST	BIT	MPC(30%),PSPL(25),PGE(20),WWPC(15),PPL(10)
86/04	WSCC	GT PROJECT 5	25	GT	NG	OPERATOR: NCPA; RATING: 24.9MW
86/04	WSCC	PALO VERDE 2	1270	NP	UR	APS(29.1%),SRP(17.5),SCE(16.6),EPE(15.8),OTHER(21)
86/05	NPCC	MILLSTONE 3	1150	NP	UR	NOEU(65.17%),NEES(12.2),MMWE(6.15),OTHERS(16.48)
86/07	WSCC	INTERMOUNTAIN 1	761	ST	BIT	LDWP(44.6%),ICPA(21.1),ANHM(13.2),OTHER(21.1)
86/08	MAIN	CLINTON 1	950	NB	UR	IP(808MW),SYPC(75),WIPC(67)
86/10	NPCC	SEABROOK 1	1150	NP	UR	PSNH(35.58%),UNIC(17.5),MMWE(11.67),OTHERS(35.25)
86/12	ERCOT	OKLAUNION 1	665	ST	SUB	CP&L(119MW),WETU(364),SPP(182)
86/12	MAAC	HOPE CREEK 1	1067	NB	UR	PSCO(1014MW),AECO(53)
a	ECAR	PERRY 1	1179	NB	UR	CEI(367MW),TECO(235),OE(416),DLCO(161)
SUBTOTAL			11628			
87/01	NPCC	NINE MILE POINT 2	1080	NP	UR	NIMP(41%),NEYE(18),LOIL(18),ROGE(14),CEHG(9)
87/01	SERC	SCHERER 3	808	ST	BIT	JOINTLY OWNED BY GEPC, OPC, MEAG, AND DALTON
87/04	SERC	ST. JOHN'S 1	550	ST	BIT	FLPL(275MW),JACO(275)
87/06	SERC	VOGTLE 1	1150	NP	UR	JOINTLY OWNED BY GEPC, OPC, MEAG, AND DALTON.
87/06	WSCC	PALO VERDE 3	1270	NP	UR	APS(29.1%),SRP(17.5),SCE(16.6),EPE(15.8),OTHER(21)
87/07	ERCOT	COMANCHE PEAK 1	1150	NP	UR	TUEC(1035MW),TMPP(115)
87/07	SERC	STANTON 1	415	ST	BIT	ORLA(285MW),KISM(20),FMPA(111)
87/07	WSCC	INTERMOUNTAIN 2	761	ST	BIT	LDWP(44.6%),ICPA(21.1),ANHM(13.2),OTHER(21.1)
87/11	MAPP	SHERBURNE CO 3	800	ST	SUB	NSP(472MW),SMMP(328)
87/12	ECAR	BEAVER VALLEY 2	820	NP	UR	CEI(201MW),TECO(163),OE(344),DLCO(112)
87/12	ERCOT	SOUTH TEXAS PROJECT 1	1250	NP	UR	AUST(200MW),CP&L(315),CPSA(350),HL&P(385)
SUBTOTAL			10054			
88/01	ERCOT	COMANCHE PEAK 2	1150	NP	UR	TUSC(1035MW),TMPP(115)
88/01	WSCC	CCPA NO. 1-1	61	GE	GST	OPERATOR: SMUD; OWNERS: SMUD(50%),MID(40),SNCL(10)
88/01	WSCC	CCPA NO.1-2	61	GE	GST	OPERATOR: SMUD; OWNERS: SMUD(50%),MID(40),SNCL(10)
88/01	WSCC	DON PEDRO UNIT 4	28	HY	WAT	OPERATOR: TID; OWNERS: TID(68.46%),MID(31.54)
88/05	WSCC	HEBER	45	GE	GST	SDGE(82.5%),IID(10),CDWR(7.5)
88/09	SERC	VOGTLE 2	1150	NP	UR	JOINTLY OWNED BY GEPC, OPC, MEAG, AND DALTON.
88/10	SERC	ST. JOHN'S 2	550	ST	BIT	FLPL(275MW),JACO(275)
SUBTOTAL			3045			
89/02	SERC	SCHERER 4	808	ST	BIT	JOINTLY OWNED BY GEPC, OPC, MEAG, AND DALTON.
89/06	ERCOT	SOUTH TEXAS PROJECT 2	1250	NP	UR	AUST(200MW),CP&L(315),CPSA(350),HL&P(385)
SUBTOTAL			2058			
90/01	WSCC	HYDROELEC. PROJ. NO. 1	200	HY	WAT	OPERATOR: NCPA ;FORMERLY CALAVERAS HYDRO
90/10	WSCC	SHEERNESS 2	366	ST	SUB	TAUC(50%),APL(50)
SUBTOTAL			566			
91/06	ECAR	W.H. ZIMMER 1	1300	ST	COL	AEP(330MW),DP&L(365),CG&E(605)
SUBTOTAL			1300			
93/06	WSCC	WHITE PINE 1	750	ST	BIT	LDWP(39.1%),NEVP(25),SPP(10),ANHM(3.6),OTHER(22.3)
SUBTOTAL			750			

a) Full reliable operation is expected before the 1986-87 winter peak period. The effective date will depend on fuel load and progress during the test period.

APPENDIX H

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
JOINTLY-OWNED GENERATING UNIT ADDITIONS
(April 1, 1986 - December 31, 1995)

IN-SVC DATE	REGION	NAME	MW-S	TYPE	FUEL	COMMENTS
94/01	ERCOT	SAN MIGUEL 2	400	ST	LIG	ST&M(200MW),TMPP(200)
94/06	WSCC	WHITE PINE 2	750	ST	BIT	LDWP(39.1%),NEVP(25),SPP(10),ANHM(3.6),OTHER(22.3)
94/12	ERCOT	COLETO CREEK 2	680	ST	BIT	WETU(152MW),CP&L(349),OTHER(179)
SUBTOTAL			1830			
95/05	MAPP	NORTH DAKOTA LIGNITE 1	500	ST	LIG	NSP(400MW),UNDETERMINED(100)
95/12	ERCOT	WALKER COUNTY A 1	640	ST	LIG	CP&L(302MW),WETU(57),PSOK(99),SOEP(182)
SUBTOTAL			1140			
Under Review[a]	ECAR	PERRY 2	1179	NS	UR	CEI(367MW),TECO(235),OE(416),DLCO(161)
Uncertain[b]	NPCC	SEABROOK 2	1150	NP	UR	OWNERSHIP UNDETERMINED
SUBTOTAL			2329			
TOTAL			34700			

a) Construction activity on Perry 2 has been reduced to a very low level as resources are concentrated on the completion of Perry 1. Meanwhile, all options with respect to the completion and timing of Perry 2 are being evaluated. A decision regarding the completion of Perry 2 is not expected until all options have been evaluated.

b) Seabrook 2 has an uncertain status.

APPENDIX I

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
GENERATING UNIT RETIREMENTS
(April 1, 1986 - December 31, 1995)

RET DATE	REGION	SUBREG	ST/PROV	UTILITY	NAME	MW-S	TYPE	FUEL	STATUS	U/NU	JOINT
86/04	MAAC		PA	PECO	PLYMOUTH MEETING 15	29	GT	F02	R	U	
86/04	MAAC		PA	PECO	PLYMOUTH MEETING 9	29	GT	F02	R	U	
86/04	MAAC		PA	PECO	RICHMOND 21	30	GT	F02	R	U	
86/04	MAAC		PA	PECO	RICHMOND 22	30	GT	F02	R	U	
86/04	MAAC		PA	PECO	RICHMOND 31	30	GT	F02	R	U	
86/04	MAAC		PA	PECO	RICHMOND 32	30	GT	F02	R	U	
86/04	MAAC		PA	PECO	RICHMOND 41	20	GT	F02	R	U	
86/04	MAAC		PA	PECO	RICHMOND 42	20	GT	F02	R	U	
86/04	MAAC		PA	PECO	RICHMOND 43	20	GT	F02	R	U	
86/04	MAAC		PA	PECO	RICHMOND 44	20	GT	F02	R	U	
86/04	MAAC		PA	PECO	RICHMOND 51	30	GT	F02	R	U	
86/04	MAAC		PA	PECO	RICHMOND 52	30	GT	F02	R	U	
86/04	MAAC		PA	PECO	RICHMOND 61	30	GT	F02	R	U	
86/04	MAAC		PA	PECO	RICHMOND 62	30	GT	F02	R	U	
86/04	MAAC		PA	PECO	RICHMOND 71	20	GT	F02	R	U	
86/04	MAAC		PA	PECO	RICHMOND 72	20	GT	F02	R	U	
86/04	MAAC		PA	PECO	RICHMOND 73	20	GT	F02	R	U	
86/04	MAAC		PA	PECO	RICHMOND 74	20	GT	F02	R	U	
86/05	MAPP		ND	MDU	DAKOTA 3	8.2	ST	LIG	R	U	
86/05	MAPP		ND	MDU	ELLENDALE 1	1.3	IC	F02	R	U	
86/05	MAPP		ND	MDU	ELLENDALE 2	1.3	IC	F02	R	U	
86/05	MAPP		SD	MDU	MOBRIDGE 1	1.2	IC	F02	R	U	
86/05	MAPP		SD	MDU	MOBRIDGE 2	1.2	IC	F02	R	U	
86/05	WSCC	RMP	CO	PSC	ALAMOSA 4	5.6	ST	F06	R	U	
86/05	WSCC	RMP	CO	PSC	ALAMOSA 5	5.7	ST	F06	R	U	
86/05	WSCC	RMP	CO	PSC	ALAMOSA 6	5.7	ST	F06	R	U	
86/10	WSCC	CNV	CA	PG&E	UNIDENTIFIED COGENERATION	41	CG	F06	R	CG	
86/10	WSCC	CNV	CA	PG&E	UNIDENTIFIED COGENERATION	46	CG	F06	R	CG	
86/11	MAPP		IA	IIGE	RIVERSIDE GT 1	0	GT	F02	R	U	
86/11	MAPP		IA	IIGE	RIVERSIDE GT 2	0	GT	F02	R	U	
86/11	MAPP		IA	IIGE	RIVERSIDE GT 3	0	GT	F02	R	U	
86/11	MAPP		IA	IIGE	RIVERSIDE GT 4	0	GT	F02	R	U	
86/11	MAPP		MN	SMMP	GRAND MARAIS 1	0.6	IC	F02	R	U	
86/11	NPCC	NE	NH	PSNH	CONWAY DIESEL 1	1	IC	F02	R	U	
86/11	NPCC	NE	NH	PSNH	CONWAY DIESEL 2	1	IC	F02	R	U	
86/11	NPCC	NE	NH	PSNH	CONWAY DIESEL 3	1	IC	F02	R	U	
86/12	ECAR		OH	TECO	ACME LP	20	ST	F06	R	U	
86/12	NPCC	NE	CT	NOEU	DEVON 3	68	ST	F06	R	U	
86/12	NPCC	NE	CT	NOEU	DEVON 4	50	ST	F06	R	U	
86/12	NPCC	NE	CT	NOEU	DEVON 5	48	ST	F06	R	U	
86/12	NPCC	NE	CT	NOEU	DEVON 6	68	ST	F06	R	U	
86/12	NPCC	NE	CT	NOEU	DOREEN 10	16.6	JE	F01	R	U	
86/12	NPCC	NE	CT	NOEU	FRANKLIN DRIVE 10	17.2	JE	F01	R	U	
86/12	NPCC	NE	CT	NOEU	MIDDLETOWN 1	69.5	ST	F06	R	U	
86/12	NPCC	NE	CT	NOEU	SILVER LAKE 12	14	GT	F02	R	U	
86/12	NPCC	NE	CT	NOEU	TORRINGTON TERMINAL	17.2	JE	F01	R	U	
86/12	NPCC	NE	CT	NOEU	TUNNEL JET 10	17.2	JE	F01	R	U	
86/12	NPCC	NE	CT	NOEU	WOODLAND ROAD 10	16.6	JE	F01	R	U	
86/12	SPP	SE	AR	MSUI	HARVEY COUCH 1	25	ST	NG	R	U	
SUBTOTAL						1026					
87/01	ERCOT		TX	HL&P	DEEPWATER 1	16.8	ST	NG	R	U	
87/01	ERCOT		TX	HL&P	DEEPWATER 2	16.8	ST	NG	R	U	
87/01	ERCOT		TX	HL&P	DEEPWATER 3	16.8	ST	NG	R	U	
87/01	ERCOT		TX	HL&P	DEEPWATER 4	16.8	ST	NG	R	U	
87/01	ERCOT		TX	HL&P	DEEPWATER 5	16.9	ST	NG	R	U	
87/01	ERCOT		TX	HL&P	DEEPWATER 6	16.9	ST	NG	R	U	

APPENDIX I
NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
GENERATING UNIT RETIREMENTS
(April 1, 1986 - December 31, 1995)

RET DATE	REGION	SUBREG	ST/PROV	UTILITY	NAME	MW-S	TYPE	FUEL	STATUS	U/NU	JOINT
87/01	ERCOT		TX	HL&P	GREENS BAYOU 1	69	ST	NG	R	U	
87/01	ERCOT		TX	HL&P	GREENS BAYOU 2	69	ST	NG	R	U	
87/01	ERCOT		TX	HL&P	T. H. WHARTON 1	71	ST	NG	R	U	
87/01	WSCC	CNV	CA	PG&E	UNIDENTIFIED COGENERATION	46	CG	F06	R	CG	
87/01	WSCC	CNV	CA	PG&E	UNIDENTIFIED COGENERATION	46	CG	F06	R	CG	
87/01	WSCC	CNV	CA	SCE	ETIWANDA 1	132	ST	F04	R	U	
87/01	WSCC	CNV	CA	SCE	ETIWANDA 2	132	ST	F04	R	U	
87/01	WSCC	CNV	CA	SDGE	STATION B	1	CG	NG	R	CG	
87/02	SPP	N	KS	EMDE	RIVERTON 3	10	ST	NG	R	U	
87/02	SPP	N	KS	EMDE	RIVERTON 4	10	ST	NG	R	U	
87/10	NPCC	NE	MA	HOGE	CABOT 9	4.8	ST	F06	R	U	
87/11	MAPP		MN	SMMP	AUSTIN DOWNTOWN 1	5.7	ST	NG	R	U	
87/11	MAPP		MN	SMMP	AUSTIN DOWNTOWN 3	8.6	ST	NG	R	U	
87/11	MAPP		MN	SMMP	AUSTIN DOWNTOWN 4	11.5	ST	NG	R	U	
87/11	MAPP		MN	SMMP	AUSTIN DOWNTOWN 5	4.5	GT	NG	R	U	
87/11	MAPP		MN	SMMP	BLOOMING PRAIRIE 1	1.4	IC	F02	R	U	
87/11	MAPP		MN	SMMP	BLOOMING PRAIRIE 2	1.5	IC	F02	R	U	
87/11	MAPP		MN	SMMP	FAIRMONT 6	6	IC	NG	R	U	
87/11	MAPP		MN	SMMP	FAIRMONT 7	6	IC	NG	R	U	
87/11	MAPP		MN	SMMP	GRAND MARAIS 2	.7	IC	F02	R	U	
87/11	MAPP		MN	SMMP	GRAND MARAIS 5	1	IC	F02	R	U	
87/11	MAPP		MN	SMMP	GRAND MARAIS 6	1.3	IC	F02	R	U	
87/11	MAPP		MN	SMMP	LITCHFIELD 5	2	IC	NG	R	U	
87/11	MAPP		MN	SMMP	LITCHFIELD 6	2	IC	NG	R	U	
87/11	MAPP		MN	SMMP	MORA 2	1.1	IC	F02	R	U	
87/11	MAPP		MN	SMMP	MORA 5	5.6	IC	F02	R	U	
87/11	MAPP		MN	SMMP	MORA 6	6.9	IC	F02	R	U	
87/11	MAPP		MN	SMMP	NEW PRAGUE 2	4.7	IC	NG	R	U	
87/11	MAPP		MN	SMMP	NEW PRAGUE 3	2.7	IC	NG	R	U	
87/11	MAPP		MN	SMMP	NEW PRAGUE 4	3.5	IC	NG	R	U	
87/11	MAPP		MN	SMMP	NEW PRAGUE 6	6.5	IC	NG	R	U	
87/11	MAPP		MN	SMMP	NORTH BRANCH 1	.9	IC	NG	R	U	
87/11	MAPP		MN	SMMP	NORTH BRANCH 2	1.3	IC	NG	R	U	
87/11	MAPP		MN	SMMP	OWATONNA DOWNTOWN 5	9	ST	NG	R	U	
87/11	MAPP		MN	SMMP	OWATONNA DOWNTOWN 6	20.1	ST	NG	R	U	
87/11	MAPP		MN	SMMP	OWATONNA WEST SUB 7	17.7	GT	NG	R	U	
87/11	MAPP		MN	SMMP	PRESTON 5	.9	IC	NG	R	U	
87/11	MAPP		MN	SMMP	PRESTON 6	2.1	IC	NG	R	U	
87/11	MAPP		MN	SMMP	PRINCETON 3	2.1	IC	F02	R	U	
87/11	MAPP		MN	SMMP	PRINCETON 4	.8	IC	F02	R	U	
87/11	MAPP		MN	SMMP	PRINCETON 5	.8	IC	F02	R	U	
87/11	MAPP		MN	SMMP	PRINCETON 6	2.4	IC	F02	R	U	
87/11	MAPP		MN	SMMP	REDWOOD FALLS DOWNTOWN 2	6.1	IC	NG	R	U	
87/11	MAPP		MN	SMMP	REDWOOD FALLS SE 1	2.1	IC	NG	R	U	
87/11	MAPP		MN	SMMP	ROCHESTER CASCADE CR 7	28.0	GT	F02	R	U	
87/11	MAPP		MN	SMMP	SPRING VALLEY 2	1	IC	NG	R	U	
87/11	MAPP		MN	SMMP	SPRING VALLEY 3	1.9	IC	NG	R	U	
87/11	MAPP		MN	SMMP	SPRING VALLEY 4	4.1	IC	NG	R	U	
87/11	MAPP		MN	SMMP	WELLS 1	1.3	IC	NG	R	U	
87/11	MAPP		MN	SMMP	WELLS 2	1.6	IC	NG	R	U	
87/11	MAPP		MN	SMMP	WELLS 4	2.3	IC	NG	R	U	
87/11	MAPP		MN	SMMP	WELLS 5	2.3	IC	NG	R	U	
87/11	NPCC	NE	NH	CEMP	MASON 1	21.1	ST	F06	R	U	
87/12	MAPP		WI	NSP	ATHENS 1	1	IC	F02	R	U	
87/12	MAPP		WI	NSP	ATHENS 2	1	IC	F02	R	U	
87/12	SPP	WC	OK	OKGE	HOLLIS DIESEL	4	IC	F02	R	U	
SUBTOTAL						911					

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RET DATE	REGION	SUBREG	ST/PROV	UTILITY	NAME	MW-S	TYPE	FUEL	STATUS	U/NU	JOINT
88/01	ECAR		OH	CEI	LAKE SHORE 14	56	ST	F06	R	U	
88/01	ECAR		OH	CEI	LAKE SHORE 15	58	ST	F06	R	U	
88/01	SERC	SOU	AL	ALAP	BARRY A	22.5	CT	OIL	R	U	
88/01	SERC	SOU	AL	ALAP	BARRY B	22.5	CT	OIL	R	U	
88/01	WSCC	AZN	NM	EPE	RIO GRANDE 3	19	ST	NG	R	U	
88/01	WSCC	AZN	NM	EPE	RIO GRANDE 4	34	ST	NG	R	U	
88/01	WSCC	AZN	NM	EPE	RIO GRANDE 5	34	ST	NG	R	U	
88/01	WSCC	CNV	CA	SCE	REDONDO BEACH 5	175	ST	F04	R	U	
88/01	WSCC	CNV	CA	SCE	REDONDO BEACH 6	175	ST	F04	R	U	
88/05	SERC	FL	FL	TALL	SAM O. PURDOM 1	0	ST	F06	R	U	
88/05	SERC	FL	FL	TALL	SAM O. PURDOM 2	0	ST	F06	R	U	
88/05	SERC	FL	FL	TALL	SAM O. PURDOM 3	0	ST	F06	R	U	
88/05	SERC	FL	FL	TALL	SAM O. PURDOM 4	0	ST	BIT	R	U	
88/11	MAPP		MN	SMMP	ROCHESTER SILVER LAKE 2	13.9	ST	BIT	R	U	
88/11	NPCC	NE	NH	PSNH	SCHILLER 3	27.3	ST	F06	R	U	
88/12	MAAC		PA	PECO	SCHUYLKILL 3	12	ST	F06	R	U	
SUBTOTAL						649					
89/01	ERCOT		TX	TUEC	DALLAS 3	75	ST	NG	R	U	
89/01	ERCOT		TX	TUEC	DALLAS 9	70	ST	NG	R	U	
89/01	SERC	SOU	GA	GEPC	ATKINSON 1	54	ST	F02	R	U	
89/01	WSCC	CNV	CA	SCE	SAN BERNARDINO 1	63	ST	F04	R	U	
89/01	WSCC	CNV	CA	SCE	SAN BERNARDINO 2	63	ST	F04	R	U	
89/02	WSCC	CNV	CA	PG&E	UNID. GAS/OIL RETIREMENT	106	ST	NG	R	U	
89/02	WSCC	CNV	CA	PG&E	UNID. GAS/OIL RETIREMENT	74	ST	NG	R	U	
89/04	ECAR		OH	BMLW	BRYAN #2	3	IC	F02	R	U	
89/05	MAAC		MD	DPLC	EASTON 3	0.5	IC	F02	R	U	
89/05	MAAC		MD	DPLC	EASTON 4	0.6	IC	F02	R	U	
89/05	MAAC		MD	DPLC	EASTON 5	0.8	IC	F02	R	U	
89/10	WSCC	NWP	AB	EDMP	ROSSDALE 6	22	GT	NG	R	U	
89/10	WSCC	NWP	AB	EDMP	ROSSDALE 7	22	GT	NG	R	U	
89/12	SPP	N	MO	STJO	EDMOND ST. 4	19	ST	GAS	R	U	
89/12	SPP	N	MO	STJO	EDMOND ST. 7	16	ST	GAS	R	U	
SUBTOTAL						589					
90/01	ERCOT		TX	TUEC	MOUNTAIN CREEK 6	115	ST	NG	R	U	
90/01	MAIN	WUM	WI	WEP	COMMERCE	31	ST	NG	R	U	
90/01	SERC	FL	FL	HSTM	G. W. IVEY 1	2	IC	F02	R	U	
90/01	SERC	FL	FL	HSTM	G. W. IVEY 8	2.6	IC	NG	R	U	
90/01	SERC	FL	FL	HSTM	G. W. IVEY 9	2.7	IC	NG	R	U	
90/01	SERC	SOU	AL	ALAP	GORGAS 5	61	ST	BIT	R	U	
90/01	SERC	SOU	FL	HSTM	G. W. IVEY 10	2.7	IC	NG	R	U	
90/01	SERC	SOU	GA	GEPC	ATKINSON 2	62	ST	F02	R	U	
90/01	WSCC	CNV	CA	PASA	BROADWAY 1	45	ST	NG	R	U	
90/04	SERC	FL	FL	TALL	SAM O. PURDOM 5	22	ST	F06	R	U	
90/05	MAAC		MD	DPLC	EASTON 6	1.2	IC	F02	R	U	
90/05	NPCC	NY	NY	ROGE	BEEBEE 10	7.6	ST	F06	R	U	
90/05	NPCC	NY	NY	ROGE	BEEBEE 11	7.6	ST	F06	R	U	
90/05	NPCC	NY	NY	ROGE	BEEBEE 3	7.7	ST	F06	R	U	
90/05	NPCC	NY	NY	ROGE	BEEBEE 6	7.7	ST	F06	R	U	
90/05	NPCC	NY	NY	ROGE	BEEBEE 8	7.7	ST	F06	R	U	
90/05	NPCC	NY	NY	ROGE	BEEBEE 9	7.7	ST	F06	R	U	
90/05	SERC	VAC	SC	SOCG	UNDETERMINED	100	GT	UNK	R	U	
90/06	SPP	SE	LA	LAFA	NATCHITOCHES 10	26	ST	NG	R	U	
90/06	SPP	SE	LA	LAFA	NATCHITOCHES 2	1.5	IC	NG	R	U	
90/06	SPP	SE	LA	LAFA	NATCHITOCHES 3	1.5	IC	NG	R	U	
90/06	SPP	SE	LA	LAFA	NATCHITOCHES 4	0.5	IC	NG	R	U	

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RET DATE	REGION	SUBREG	ST/PROV	UTILITY	NAME	MW-S	TYPE	FUEL	STATUS	U/NU	JOINT
90/06	SPP	SE	LA	LAFA	NATCHITOCHES 5	0.5	IC	NG	R	U	
90/06	SPP	SE	LA	LAFA	NATCHITOCHES 6	2.8	IC	NG	R	U	
90/06	SPP	SE	LA	LAFA	NATCHITOCHES 7	2.8	IC	NG	R	U	
90/06	SPP	SE	LA	LAFA	NATCHITOCHES 8	6	ST	NG	R	U	
90/06	SPP	SE	LA	LAFA	NATCHITOCHES 9	12.6	ST	NG	R	U	
90/07	WSCC	RMP	CO	SCPC	PUEBLO 1	8	ST	NG	R	U	
90/10	ECAR		OH	CG&E	MIAMI FORT GT 1	48	GT	FO2	R	U	
90/10	ECAR		OH	CG&E	MIAMI FORT GT 2	48	GT	FO2	R	U	
90/10	WSCC	NWP	AB	APL	FORT MCMURRAY	13	GT	NG	R	U	
90/10	WSCC	NWP	AB	APL	STURGEON 1	7	GT	NG	R	U	
90/10	WSCC	NWP	AB	APL	STURGEON 2	6	GT	NG	R	U	
90/10	WSCC	NWP	AB	CMH	MEDICINE HAT 4	3	ST	NG	R	U	
90/10	WSCC	NWP	AB	CMH	MEDICINE HAT 6	5	ST	NG	R	U	
90/10	WSCC	NWP	AB	EDMP	ROSSDALE 2	14	ST	NG	R	U	
90/10	WSCC	NWP	AB	EDMP	ROSSDALE 3	28	ST	NG	R	U	
90/10	WSCC	NWP	AB	EDMP	ROSSDALE 4	28	ST	NG	R	U	
90/10	WSCC	NWP	BC	BCHA	BOSTON BAR DIESEL	1	IC	FO2	R	U	
90/10	WSCC	NWP	BC	BCHA	LYTTON DIESEL	2	IC	FO2	R	U	
90/11	SERC	FL	FL	JACO	SOUTHSIDE 1	0	ST	FO6	R	U	
90/12	ECAR		IN	NIPS	MICHIGAN CITY 2	60	ST	COL	R	U	
90/12	MAAC		PA	PECO	CROMBY 2	201	ST	FO6	R	U	
90/12	MAAC		PA	PECO	DELAWARE 7	126	ST	FO6	R	U	
90/12	MAAC		PA	PECO	DELAWARE 8	124	ST	FO6	R	U	
90/12	MAAC		PA	PECO	DELAWARE D	2.7	IC	FO2	R	U	
90/12	SPP	SE	AR	MSUI	CECIL LYNCH 2	55	ST	NG	R	U	
90/12	SPP	SE	AR	MSUI	LAKE CATHERINE 1	45	ST	NG	R	U	
90/12	SPP	SE	AR	MSUI	LAKE CATHERINE 2	44	ST	NG	R	U	
90/12	SPP	SE	LA	MSUI	A. B. PATTERSON 3	55	ST	NG	R	U	
90/12	SPP	WC	OK	PSOK	GRANDFIELD DIESEL	2	IC	FO2	R	U	
SUBTOTAL						1473					
91/01	ERCOT		TX	TUEC	HANDLEY 1	45	ST	NG	R	U	
91/01	ERCOT		TX	TUEC	HANDLEY 2	80	ST	NG	R	U	
91/01	ERCOT		TX	TUEC	MORGAN CREEK 2	22	ST	NG	R	U	
91/01	ERCOT		TX	TUEC	MORGAN CREEK 3	44	ST	NG	R	U	
91/01	ERCOT		TX	TUEC	PARKDALE 2	115	ST	NG	R	U	
91/01	ERCOT		TX	TUEC	PARKDALE 3	125	ST	NG	R	U	
91/01	SERC	FL	FL	JACO	SOUTHSIDE 2	0	ST	FO6	R	U	
91/01	SERC	SOU	GA	GEPC	ATKINSON 3	65	ST	FO2	R	U	
91/01	SERC	SOU	GA	GEPC	ATKINSON 4	65	ST	FO2	R	U	
91/01	SERC	SOU	MS	MIPR	EATON 1	24	ST	FO6	R	U	
91/01	SERC	SOU	MS	MIPR	WATSON A	31	CT	FO2	R	U	
91/01	WSCC	CNV	CA	PG&E	UNID. GAS/OIL RETIREMENT	115	ST	NG	R	U	
91/01	WSCC	CNV	CA	PG&E	UNID. GAS/OIL RETIREMENT	116	ST	NG	R	U	
91/01	WSCC	NWP	NV	SPP	TRACY TURBINES	11	GT	FO2	R	U	
91/05	MAPP		MN	OTP	HOOT LAKE 1	7.7	ST	LIG	R	U	
91/07	WSCC	RMP	CO	SCPC	PUEBLO 2	8	ST	NG	R	U	
91/11	ECAR		IN	NIPS	MICHIGAN CITY 3	60	ST	COL	R	U	
91/11	MAAC		DE	DPLC	DELAWARE CITY 1	27	ST	ZZ	R	U	
91/11	MAAC		DE	DPLC	DELAWARE CITY 2	27	ST	ZZ	R	U	
91/11	MAAC		DE	DPLC	DELAWARE CITY 3	40	ST	FO6	R	U	
91/12	SPP	SE	AR	MSUI	H. MOSES 1	63	ST	NG	R	U	
91/12	SPP	SE	AR	MSUI	H. MOSES 2	63	ST	NG	R	U	
91/12	SPP	SE	LA	CAJN	OPELOUSAS 1	17	ST	GAS	R	U	
91/12	SPP	SE	LA	CAJN	OPELOUSAS 2	17	ST	GAS	R	U	
91/12	SPP	SE	LA	MSUI	NINEMILE 1	70	ST	NG	R	U	
91/12	SPP	SE	MS	MSUI	NATCHEZ 1	73	ST	NG	R	U	

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91/12	SPP	SE	MS	MSUI	REX BROWN 3	69	ST	NG	R	U	
SUBTOTAL						1400					
92/01	ECAR		MI	CP	COBB 1	45	ST	COL	R	U	
92/01	ECAR		MI	CP	COBB 2	45	ST	COL	R	U	
92/01	ECAR		MI	CP	COBB 3	45	ST	COL	R	U	
92/01	ERCOT		TX	TUEC	COLLIN	153	ST	NG	R	U	
92/01	ERCOT		TX	TUEC	LAKE CREEK 1	87	ST	NG	R	U	
92/01	ERCOT		TX	TUEC	MORGAN CREEK 4	70	ST	NG	R	U	
92/01	ERCOT		TX	TUEC	NORTH MAIN 4	80	ST	NG	R	U	
92/01	ERCOT		TX	TUEC	PARKDALE 1	87	ST	NG	R	U	
92/01	ERCOT		TX	TUEC	PERMIAN BASIN 5	115	ST	NG	R	U	
92/01	ERCOT		TX	TUEC	RIVERCREST	110	ST	NG	R	U	
92/01	ERCOT		TX	TUEC	TRINIDAD 5	70	ST	NG	R	U	
92/01	SERC	SOU	AL	ALAP	CHICKASAW 3	41	ST	FO2	R	U	
92/01	SERC	SOU	MS	MIPR	SWEATT A	31	CT	FO2	R	U	
92/01	WSCC	CNV	CA	PASA	BROADWAY 2	45	ST	NG	R	U	
92/01	WSCC	CNV	CA	PG&E	UNID. GAS/OIL RETIREMENT	116	ST	NG	R	U	
92/01	WSCC	CNV	CA	PG&E	UNID. GAS/OIL RETIREMENT	116	ST	NG	R	U	
92/01	WSCC	CNV	CA	PG&E	UNID. GAS/OIL RETIREMENT	117	ST	NG	R	U	
92/01	WSCC	NWP	NV	SPP	TRACY TURBINES	11	GT	FO2	R	U	
92/05	MAAC		MD	BGCO	WESTPORT 3	58	ST	FO6	R	U	
92/05	MAAC		MD	BGCO	WESTPORT 4	68	ST	FO6	R	U	
92/05	MAPP		NB	NPPD	SCOTTSBLUFF 2	5.5	ST	NG	R	U	
92/05	SPP	N	KS	EMDE	RIVERTON 6	30	ST	NG	R	U	
92/07	MAPP		SA	SPC	ESTEVAN 2	14	ST	LIG	R	U	
92/07	MAPP		SA	SPC	ESTEVAN 4	29	ST	LIG	R	U	
92/07	MAPP		SA	SPC	ESTEVAN 8	19	ST	LIG	R	U	
92/10	ECAR		OH	CG&E	MIAMI FORT GT 3	14	GT	FO2	R	U	
92/10	ECAR		OH	CG&E	MIAMI FORT GT 4	14	GT	FO2	R	U	
92/10	ECAR		OH	CG&E	MIAMI FORT GT 5	14	GT	FO2	R	U	
92/10	ECAR		OH	CG&E	MIAMI FORT GT 6	15	GT	FO2	R	U	
92/11	MAPP		MN	SMMP	AUSTIN NORTHEAST 1	29.4	ST	BIT	R	U	
92/11	MAPP		MN	SMMP	FAIRMONT 5	12.9	ST	BIT	R	U	
92/11	MAPP		MN	SMMP	ROCHESTER SILVER LAKE 3	22	ST	BIT	R	U	
92/11	MAPP		MN	SMMP	ROCHESTER SILVER LAKE 4	60.3	ST	BIT	R	U	
92/11	NPCC	NE	NH	CEMP	MASON 2	22.2	ST	FO6	R	U	
92/12	NPCC	NE	MA	NOEU	WEST SPRINGFIELD 1	51	ST	FO6	R	U	
92/12	NPCC	NE	MA	NOEU	WEST SPRINGFIELD 2	51	ST	FO6	R	U	
SUBTOTAL						1913					
93/01	ECAR		OH	CG&E	MIAMI FORT 5	80	ST	COL	R	U	
93/01	ERCOT		TX	TUEC	MOUNTAIN CREEK 2	33	ST	NG	R	U	
93/01	ERCOT		TX	TUEC	MOUNTAIN CREEK 3	70	ST	NG	R	U	
93/01	SERC	FL	FL	GAMW	J. R. KELLY 1	14	GT	FO2	R	U	
93/01	SERC	FL	FL	GAMW	J. R. KELLY 2	14	GT	FO2	R	U	
93/01	SERC	FL	FL	GAMW	J. R. KELLY 6	14	ST	FO6	R	U	
93/01	SERC	FL	FL	TALL	SAM O. PURDOM 6	22	ST	FO6	R	U	
93/01	SERC	SOU	MS	MIPR	EATON 2	26	ST	FO6	R	U	
93/03	SPP	WC	OK	OKGE	ENID 1	12	GT	NG	R	U	
93/03	SPP	WC	OK	OKGE	ENID 2	12	GT	NG	R	U	
93/03	SPP	WC	OK	OKGE	ENID 3	12	GT	NG	R	U	
93/03	SPP	WC	OK	OKGE	ENID 4	12	GT	NG	R	U	
93/03	SPP	WC	OK	OKGE	WOODWARD GT	10.8	GT	NG	R	U	
93/06	WSCC	NWP	WA	BPA	HANFORD 1	420	ZZ	PL	R	U	
93/06	WSCC	NWP	WA	BPA	HANFORD 2	420	ZZ	PL	R	U	
93/10	ECAR		OH	CG&E	DICKS CREEK GT 3	14	GT	NG	R	U	

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RET DATE	REGION	SUBREG	ST/PROV	UTILITY	NAME	MW-S	TYPE	FUEL	STATUS	U/NU	JOINT
93/10	ECAR		OH	CG&E	DICKS CREEK GT 4	15	GT	FO2	R	U	
93/10	ECAR		OH	CG&E	DICKS CREEK GT 5	15	GT	FO2	R	U	
93/11	NPCC	NE	MA	COMW	BLACKSTONE 1	13.5	ST	FO6	R	U	
93/11	NPCC	NE	MA	COMW	BLACKSTONE 3	0	ST	FO6	R	U	
93/11	NPCC	NE	MA	COMW	BLACKSTONE 4	2	ST	FO6	R	U	
93/12	MAAC		PA	PECO	SCHUYLKILL 1	166	ST	FO6	R	U	
93/12	MAAC		PA	PECO	SCHUYLKILL D	2.7	IC	FO2	R	U	
93/12	SPP	SE	AR	MSUI	LAKE CATHERINE 3	90	ST	NG	R	U	
93/12	SPP	SE	LA	MSUI	NINEMILE 2	90	ST	NG	R	U	
93/12	SPP	SE	MS	MSUI	DELTA 1	95	ST	NG	R	U	
93/12	SPP	SE	MS	MSUI	DELTA 2	95	ST	NG	R	U	
93/12	SPP	SE	MS	MSUI	REX BROWN 1	36	ST	NG	R	U	
93/12	SPP	WC	TX	SOEP	KNOX LEE 2	38	ST	NG	R	U	
93/12	SPP	WC	TX	SOEP	KNOX LEE 3	36	ST	NG	R	U	
93/12	SPP	WC	TX	SOEP	LONE STAR 1	50	ST	FO2	R	U	
93/12	SPP	WC	TX	SOEP	LONE STAR 2	13	GT	FO2	R	U	
93/12	SPP	WC	TX	SOEP	LONE STAR 3	13	GT	FO2	R	U	
93/12	SPP	WC	TX	SOEP	LONE STAR 4	14	GT	FO2	R	U	
SUBTOTAL						1970					
94/01	ERCOT		TX	TUEC	EAGLE MOUNTAIN 1	115	ST	NG	R	U	
94/01	ERCOT		TX	TUEC	EAGLE MOUNTAIN 2	175	ST	NG	R	U	
94/01	SERC	FL	FL	GAMW	J. R. KELLY 3	14	GT	FO2	R	U	
94/05	MAAC		MD	DPLC	EASTON 7	2	IC	FO2	R	U	
94/12	NPCC	NE	CT	NOEU	COS COB 10	19	JE	FO1	R	U	
94/12	NPCC	NE	CT	NOEU	COS COB 11	19	JE	FO1	R	U	
94/12	NPCC	NE	CT	NOEU	COS COB 12	19	JE	FO1	R	U	
94/12	SPP	SE	AR	MSUI	CECIL LYNCH 3	130	ST	NG	R	U	
94/12	SPP	SE	AR	MSUI	H. COUCH 2	122	ST	NG	R	U	
94/12	SPP	SE	LA	MSUI	A. B. PATERSON #4	80	ST	NG	R	U	
SUBTOTAL						695					
95/01	ERCOT		TX	TUEC	MOUNTAIN CREEK 7	125	ST	NG	R	U	
95/01	ERCOT		TX	TUEC	STRYKER 1	175	ST	NG	R	U	
95/01	SERC	FL	FL	HSTM	G. W. IVEY 11	3	IC	NG	R	U	
95/01	SERC	FL	FL	HSTM	G. W. IVEY 12	3	IC	NG	R	U	
95/01	SERC	SOU	AL	ALAP	GADSDEN 1	68	ST	BIT	R	U	
95/01	SERC	SOU	AL	ALAP	GADSDEN 2	68	ST	BIT	R	U	
95/01	SERC	SOU	MS	MIPR	EATON 3	24	ST	FO6	R	U	
95/03	SPP	SE	OK	OKGE	MUSTANG 1	58	ST	NG	R	U	
95/03	SPP	SE	OK	OKGE	MUSTANG 2	57	ST	NG	R	U	
95/05	MAPP		NB	NPPD	DAVID CITY 1	1.2	IC	NG	R	U	
95/05	MAPP		NB	NPPD	DAVID CITY 2	1.2	IC	NG	R	U	
95/05	MAPP		NB	NPPD	DAVID CITY 3	1.2	IC	NG	R	U	
95/05	MAPP		NB	NPPD	DAVID CITY 4	1.2	IC	NG	R	U	
95/06	ERCOT		TX	CP&L	LA PALMA 4	22	ST	NG	R	U	
95/06	ERCOT		TX	CP&L	LA PALMA 5	22	ST	NG	R	U	
95/06	ERCOT		TX	CP&L	LAREDO 1	32	ST	NG	R	U	
95/06	ERCOT		TX	CP&L	LAREDO 2	32	ST	NG	R	U	
95/06	ERCOT		TX	CP&L	NUECES BAY 5	34	ST	NG	R	U	
95/06	ERCOT		TX	CP&L	VICTORIA 3	38	ST	NG	R	U	
95/10	ECAR		OH	CG&E	DICKS CREEK GT 1	92	JE	NG	R	U	
95/12	NPCC	NE	CT	NOEU	MONTVILLE 5	81	ST	FO6	R	U	
95/12	NPCC	NE	CT	NOEU	SOUTH MEADOW 11	39	JE	FO1	R	U	
95/12	NPCC	NE	CT	NOEU	SOUTH MEADOW 12	39	JE	FO1	R	U	
95/12	NPCC	NE	CT	NOEU	SOUTH MEADOW 13	39	JE	FO1	R	U	
95/12	NPCC	NE	CT	NOEU	SOUTH MEADOW 14	39	JE	FO1	R	U	

APPENDIX I

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LOADS & RESOURCES DATA SYSTEM
GENERATING UNIT RETIREMENTS
(April 1, 1986 - December 31, 1995)

RET DATE	REGION	SUBREG	ST/PROV	UTILITY	NAME	MW-S	TYPE	FUEL	STATUS	U/NU	JOINT
95/12	SPP	WC	LA	MSUI	NINEMILE 3	125	ST	NG	R	U	
95/12	SPP	WC	OK	PSOK	SOUTHWESTERN 1	80	ST	NG	R	U	
95/12	SPP	WC	OK	PSOK	TULSA 3	85	ST	NG	R	U	
SUBTOTAL						1385					
TOTAL						12011					

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
LISTING OF REGIONS AND SUBREGIONS

REGIONS	COUNTRY	SUBREGIONS
ECAR East Central Area Reliability Coordination Agreement	U.S.	None
ERCOT Electric Reliability Council of Texas	U.S.	None
MAAC Mid-Atlantic Area Council	U.S.	None
MAIN Mid-America Interpool Network	U.S.	CE- **CMNWLTH EDISON**-Commonwealth Edison Company Subregion
	U.S.	EM- **EAST MISSOURI**-East Missouri Subregion
	U.S.	SCI- **S. CENT. ILLINOIS**-South Central Illinois Group
	U.S.	WUM- **WIS-UPPER MICH.**-Wisconsin-Upper Michigan Subregion
MAPP Mid-continent Area Power Pool	U.S.	None
	CANADA	None
NPCC Northeast Power Coordinating Council	U.S.	NY- **NEW YORK**-New York Power Pool
	U.S.	NE- **NEW ENGLAND**-New England Power Pool
	CANADA	NB- **NEW BRUNSWICK**-New Brunswick Electric Power Commission
	CANADA	NS- **NOVA SCOTIA**-Nova Scotia Power Corp.
	CANADA	ONT- **ONTARIO**-Ontario Hydro
	CANADA	QUE- **QUEBEC**-Hydro Québec
SERC Southeastern Electric Reliability Council	U.S.	FL- **FLORIDA**-Florida Subregion
	U.S.	SOU- **SOUTHERN**-Southern Subregion
	U.S.	**TVA**-Tennessee Valley Authority Subregion
	U.S.	VAC- **VACAR**-Virginia-Carolinas Subregion
SPP Southwest Power Pool	U.S.	SE- **SOUTHEAST**-Western Mississippi, Southeastern Texas, Eastern Arkansas, Southeastern Missouri and Louisiana
	U.S.	WC- **WEST CENTRAL**-Western Arkansas, the Texas Panhandle, Northeast Texas, and Oklahoma
	U.S.	N- **NORTHERN**-Western Missouri and Kansas
WSCC Western Systems Coordinating Council	U.S.	NWP- **NW POOL**-Northwest Power Pool Area
	U.S.	RMP- **ROCKY MT. AREA**-Rocky Mountain Power Area
	U.S.	AZN- **ARIZ-N.MEX.**-Arizona-New Mexico Power Area
	U.S.	CNV- **CALIF-SO.NEV.**-California-Southern Nevada Power Area
	CANADA	None
	MEXICO	None